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ABSTRACT

The results of a study conducted to assess the impact of the recently imposed mandatory fee on California community college enrollments are presented in this report. Following a summary, background information, and materials on the timing and content of the study, findings are presented with regard to the impact of the fee on student enrollment; ethnic distribution of students; income distribution of students; distribution of full- and part-time students; changes in staffing and costs of administering fees; the availability of federal, state, and other sources of financial aid; and the administration and distribution of financial aid by the Chancellor's Office and college districts. Among the findings highlighted are the following: (1) in spite of a budget increase, credit enrollment in California community colleges declined by 7% in 1984 (nearly twice the loss which took place in colleges across the nation), indicating that the new enrollment fee did contribute to the enrollment loss; (2) few of the effects reported for 1984 in California continued into 1985; (3) in 1985, credit enrollment stabilized and there was a slight return of low-income students, which may have been due to the large second-year increase in financial aid; (4) both credit and non-credit enrollment increased in fall 1986; and (5) the Board's Financial Assistance Program had less than the expected impact in its first year, but exerted a positive impact on enrollment in the next two years. Appendices include a description of the Fee Impact Study Advisory Committee; data on enrollment and participation rates, 1980-86; national enrollment data; an analysis of district changes; data on student socioeconomics, 1984-86; and fee administration information. (EJV)

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STUDY OF FEE IMPACT: FINAL REPORT

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CALIFORNIA COMMUNITY COLLEGES

CHANCELLOR'S OFFICE

JUNE 1987

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Preface

While California community colleges had established many student fees for specific services during the 1960s and 1970s, it wasn't until 1984 that all students were charged a fee for enrollment in credit classes. Legislation that year created such a fee and established a financial aid grant program to be administered by the Board of Governors in order that low-income students not be denied access. Emphasizing their concern about student access, the Legislature requested a study of the impact of the fee and financial aid. This report presents the results of that study.

Isolating the effect of fees and other student costs on enrollment is not an easy task. Numerous factors interact to determine the level of community college enrollment, including the quantity and scheduling of courses and supporting services which, in turn, are determined by fiscal and academic policies. Changing trends in the state's economy and demography, together with changes in student preferences, also play an important part in shaping student enrollment demand as do the costs of college-going. Drawing from a number of data sources, we have attempted to sort out the causal factors in recent enrollment trends, focusing -- as requested -- on those factors operative in 1984, the first year of the new fee.

This study was conducted by staff of the Chancellor's Office Research and Analysis Unit of the Policy Development Division under the direction of Allene Murdoch. Questions and comments regarding the report should be directed to Chuck McIntyre of the Research and Analysis Unit. We are grateful for the help of an advisory committee that assisted both in the study's design and in the interpretation of findings. In addition, surveys by the Field Research Corporation, and particularly work by Eleanor Murray, proved to be of invaluable assistance.

The existing fee and financial aid statutes expire December 31, 1987. This spring, the Legislature, together with the Administration, the Board of Governors, and institutional policymakers, began to consider policies that are to be put into place beginning in 1988. This report provides valuable background information that should facilitate the policy discussion.

JOSHUA L. SMITH
Chancellor

Sacramento
June 1987

STUDY OF FEE IMPACT
FINAL REPORT

Summary

In AB 1XX (1984), the Legislature enacted a mandatory enrollment fee and a new student financial aid program for California community college students and required the Chancellor of the community colleges to study the fee's impact. This study was to focus on seven questions and be conducted in consultation with the California Postsecondary Education Commission and with the assistance of an advisory committee.

A progress report on the study was submitted to the Legislature January 1, 1987, and a final report is due by July 1, 1987. The fee and financial aid are authorized until January 1, 1988. The timing of future policy discussions on the topic of community college student fees and financial aid suggests that policy recommendations will need to be considered prior to the time the final report is due in July 1987.

This progress report responds to the seven questions asked by the Legislature. The report's contents may be summarized briefly as follows.

Credit enrollment in California community colleges declined by 7% in 1984. This was the third consecutive year of enrollment losses since the colleges recorded their peak of 1,430,000 students in 1981. Budget and program cuts are thought to have been the primary reasons for 6% and 8% declines in 1982 and 1983. For 1984, however, there was a budget increase for inflation and enrollment growth and incentives in the funding mechanism to restore enrollment losses that had taken place in 1983. Reacting to these budget incentives, colleges attempted to grow, increasing their number of course sections by 4% over 1983. Despite this effort at growth, credit enrollments declined.

Results of this study indicate that the new enrollment fee did contribute, along with several other factors, to the 1984 enrollment loss. The Board's new student financial aid program did not compensate to any significant degree for the fee in 1984. Low income students, Black students, and part-time students taking six to eleven units were the most affected.

California's enrollment loss in 1984 was nearly twice the loss which took place in community colleges across the country that same year. Since other factors that impact upon enrollment were changing in a similar way elsewhere, the larger losses in California, particularly among part-time students, appear attributable to the impact of the new enrollment fee.

Few of the effects reported for 1984 in California continued into 1985, the second year of the fee. Credit enrollment stabilized and there was a slight return of low income students which may be due to the large second year increase in financial aid. Moreover, both credit and noncredit enrollment increased in fall 1986. Thus, the new enrollment fee appears to have had a significant impact in its first year, but not in its second and third years. By contrast, the Board's Financial Assistance Program for student had less than the expected impact in its first year, but is now exerting a positive impact on enrollment.

Current policies on student fees and financial aid, embodied in AB 1XX, expire on January 1, 1988 -- the middle of the 1987-88 academic and fiscal year. Given the need of students and institutions to plan with some certainty, it is imperative that policies to replace AB 1XX in 1988 be adopted as soon as possible.

Background

Timing and Content of Required Study

While California community colleges had established many student fees for specific services during the 1960s and 1970s it wasn't until 1984 that all students were charged a fee to enroll in credit classes. In AB 1XX (1984), the California Legislature enacted a mandatory enrollment fee for credit classes and a new state-supported financial aid program for community college students and declared the Legislature's intent "...to ensure that the imposition of a mandatory fee does not impair access to, or the quality of, California community colleges."

To help achieve this, the Chancellor of the community colleges was required to study the fee's impact upon all of the following:

1) Student enrollments.

2) Ethnic distribution of students.

3) Income distribution of students.

4) The distribution of full-time and part-time students.

5) Changes in the staffing requirements and the costs of administration.

6) The availability of federal, state, and other sources of financial aid to community college districts.

7) The administration and distribution of the financial aid in this act by the Chancellor's Office and at the district level.

Under the provisions of AB 1XX (see Appendix A), the Chancellor was to conduct this study in consultation with the California Postsecondary Education Commission (CPEC) and with the assistance of an advisory committee. Findings and recommendations of this study were to be submitted in a progress report to the Joint Legislative Budget Committee and to CPEC by January 1, 1987, with a final report due by July 1, 1987. CPEC is to submit written comments and recommendations on both reports to the Legislature.

Work on the study has been underway since the spring 1984, the term just prior to the fee's imposition. Surveys (spring 1984, spring 1985, and spring 1986) of three stratified random samples of community college students have been conducted by the Field Research Corporation (FRC) to help identify differences in student characteristics before and after the fee. Staff also have worked with numerous other sources of information, including the available literature on fees, national data on

community colleges, local California studies, and data on California community college district enrollments, fees, and other relevant factors.

The advisory committee (see membership in Appendix A) has met throughout the study, participating in the research design as well as in the interpretation of findings. Responsibility for the findings and conclusions of this report rests with the Chancellor's Office, however.

Chancellor's staff reported to the Board of Governors in January 1986 regarding preliminary findings about the fee's impact and about the factors generally affecting enrollment trends (Chancellor's Office, 1986b). Findings from a preliminary draft of the progress report were then discussed with the Board in October 1986, and the Progress Report was delivered to the Legislature and to the Postsecondary Education Commission on December 31, 1986 (Chancellor's Office, 1986d).

This Final Report on the study of fee impact draws heavily on the Progress Report. Findings of that report were reviewed in light of the fall 1986 experience and other more recent data to develop conclusions for this final report.

Policy Prior to 1984

The Organic Statutes, creating the University of California in 1867, established the principle that California residents should not pay tuition, interpreted in recent years as charges to students for the costs of their instruction. In 1960, the Master Plan Survey Team reaffirmed this principle for all three segments of California public higher education, including community colleges, but added that students should assume greater responsibility for their education by paying fees for services other than instruction. These services were distinguished between (a) "ancillary," such as housing, food and parking -- to be supported by their users -- and (b) "program related," such as health, athletics, and activities -- to be supported by all students.

Over the next two decades, the California community colleges were authorized by the Legislature to charge students a number of user fees which were "permissive," that is, could be charged at the discretion of each district. Besides nonresident tuition and fees for instruction in community services and certain adult education classes, the list of authorized user fees for various services had grown to nearly twenty in number by 1982. These fees included charges for health, parking, field trips, instructional materials and student records, among others.

Responding to a legislative request, ACR 81 in 1982, CPEC proposed a series of guidelines for fees and financial aid in California public postsecondary education. For community colleges, CPEC recommended that there be generally low fees, no charges for those courses with the highest state priority, and that courses taught for avocational, recreational and personal enrichment purposes be self-supported through fees. This recommendation was adopted by the Legislature and $30 million

of state support for such courses was withdrawn beginning in 1982-83. Some of these courses were eliminated while others became fee supported.

Another CPEC recommendation in its response to ACR 81 (1982) requested the Board of Governors to prepare a contingency fee plan with procedures to institute mandatory student charges and to distribute related student financial aid. After extensive study and public hearings, the Board responded in December 1982 with a plan that addressed the question of fees and access from two perspectives. First, the Board declared its opposition to across-the-board tuition and fees, commenting on preferred access priorities. Second, the Board recommended certain short-term conditions designed to minimize the negative impact on access of possible fee proposals.

After an extended debate in 1983 on the related issues of community college fiscal support and student fees, the Legislature and Governor reached agreement on a solution (embodied in AB 1XX) in January 1984.

The 1984 Policy Change

AB 1XX (1984) established a mandatory enrollment fee, beginning Fall 1984, of $50 per semester or $100 per year for those taking six or more credit units and $5 per unit for those taking less than six units. Students taking noncredit courses do not pay the fee. At the same time, ten permissive fees for instructional materials, health, and other student services were eliminated. Among the fees colleges can still charge to students are those for dropping courses and for parking (see table on next page).

Two percent of the fee revenue was to be retained locally for use in managing the fee. The balance of the fee revenue was to be applied as a direct offset to the State General Fund apportionment for the district.

Along with the fee changes, AB 1XX authorized financial aid for low income students. In response, the Board of Governors adopted a financial assistance program (BFAP) which, during 1984-85, was to distribute $15 million in financial aid. The Board adopted regulations under which colleges were to administer three kinds of student aid: fee credits, fee waivers, and Board of Governors grants.

Recent Policy Discussions

In 1984, CPEC responded to a legislative request that it convene a committee to "...develop recommendations on a long-term student fee policy and specific fee level calculation methodologies" for the University of California and California State University. Results of this work were transmitted to the Legislature in December 1985 and enacted in SB 195 (1985) largely as the CPEC committee had proposed.

	Community College Fees in Effect	
	Prior to 1984	1984 to 1987
Nonresident Tuition	X	X
Community Services Classes	X	X
Classes Not Eligible for ADA	X	X
Mandatory Enrollment Fee		X
Eye Protection Devices	X	X
Field Trips	X	
Field Trip (in-state) Insurance	X	
Field Trip (out-of-state) Insurance	X	X
Instructional Materials	X	*
Sale of Student Products	X	X
Materials Fee for Adult Classes	X	
Health	X	
Parking	X	X
Child Development Centers	X	X
Dormitories	X	X
Late Application	X	
Medical Insurance for Athletes	X	X
Use of Nondistrict Facilities	X	
Program Changes -- Adds	X	
Program Changes -- Drops	X	X
Student Records	X	X
Transportation of Adults	X	
Fee for Reduction of Common Fares	X	

* While eliminated, subsequent legislation enabled this fee to be used in a limited way.

While specifically excluding the community colleges, SB 195 contained a number of principles on the pricing of education for students which were endorsed by 1986 by the Master Plan Review Commission in a set of tentative recommendations for all segments of California public higher education. These tentative recommendations, expected to be unchanged in the Commission's final report include:

(a) the state bearing the primary responsibility for and the student a portion of the cost of education;

(b) segmental boards differentiating student fees by student level, resident status and program;

(c) fees not discouraging the enrollment of fully-matriculated part-time students;

(d) fees offset by financial aid for low income students;

(e) state funding increased for financial aid grants; and

(f) all students in financial need guaranteed (through statute) financial aid to enable them to enroll.

Working from a similar set of principles and from findings of the Chancellor's Progress Report on Fee Impact, the Board of Governors of the California Community Colleges (at its January 1987 meeting) adopted the following policy proposals:

(a) extending the sunset date for AB 1XX from January 1, 1988, to July 1, 1994.

(b) changing the fee's structure so that students pay $5 per unit up to a maximum of $50 (per semester -- or quarter equivalent);

(c) adjusting the fee in fall 1988 and fall 1991 to reflect the prior three-year change in cost of community college education (this would increase the fee to about $6 per unit up to a maximum of $60 in fall 1988);

(d) retaining all existing fees in AB 1XX except that the health services fee would be reinstated and the course drop fee eliminated;

(e) providing adequate financial aid through the Board's Financial Assistance Program and increasing community college financial aid office resources; and

(f) continuing work to identify and obtain financial aid grants for students whose financial need and work limit their academic progress.

As required in AB 1XX, CPEC commented on the Chancellor's Progress Report on Fee Impact at its February 1987 meeting. Without taking exception to the findings of the Progress Report, CPEC adopted a set of recommendations on community college fees that differ only slightly from the Board's. CPEC does not recommend a calendar of periodic fee level changes and it proposes to restructure the fee by charging $30 per semester for six or fewer units and $50 per semester for seven or more units, rather than the Board of Governors' proposal to charge $5 per unit up to $50. Otherwise, CPEC recommendations are essentially the same as those of the Board.

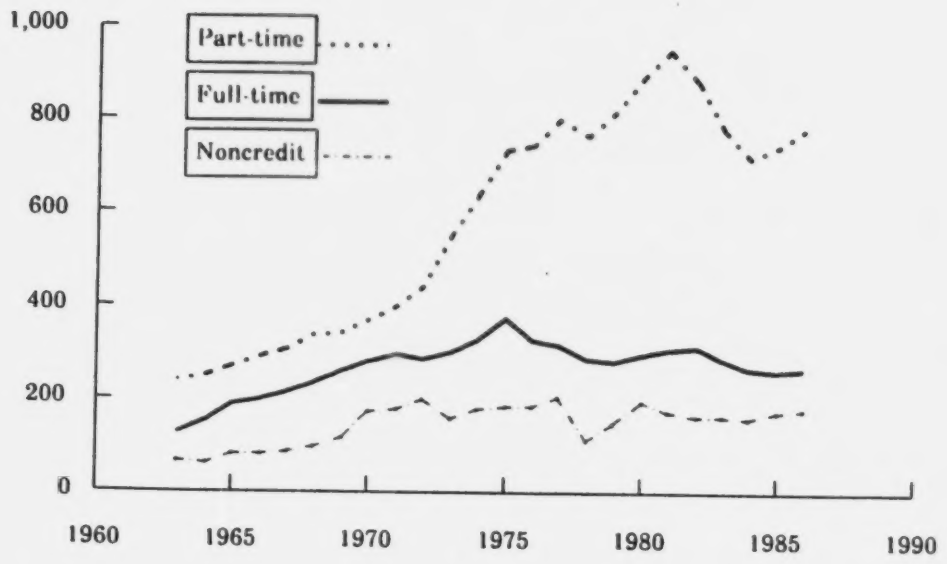
The Board of Governors fee and financial aid proposals are contained in AB 2336 (1987). Two other fee bills also have been introduced at the 1987 session: AB 311 which would establish a fee of $12 per semester for students having completed over seventy units and with incomes over $18,500 per year and AB 2419 which would reinstate a district-optional health fee beginning July 1, 1987. At the time this report was issued, AB 2336 had passed the Assembly and was about to be heard and discussed by the Senate. The other two bills were held in the Assembly policy committee.

Enrollment Trends

Trends in community college enrollments result from the interaction of changes in fiscal and academic policies for the institutions and changes in the state's demography (particularly the number of 18 to 24 years olds, who enroll in postsecondary education more than do other age groups) and the state's economy. When the economy turns down, fewer people work and enrollments increase because individuals turn to the colleges for occupational training and retraining. The opposite impact on enrollment occurs when the economy improves. College-going also is affected by changes in certain social and cultural factors.

After steadily increasing in the 1960s and early 1970s, California community college enrollments increased sharply in 1973 (See Figure 1). This was due to the adoption

Figure 1
CALIFORNIA COMMUNITY COLLEGES
ENROLLMENT
(in 000's)



Source: Chancellor's Office Management Information System, 1986.

of a fiscal policy (AB 6, 1973) that encouraged enrollment growth, the economic recession, and continued increases in the enrollment of veterans who had returned from Viet Nam. Enrollment trends shifted abruptly after 1975. In 1976, for the first time, female enrollment in California community colleges exceeded that of males. (See Chancellor's Office, 1986b). College-going declined significantly among those males over 24 years of age who returned to work in a rapidly-expanding economy. While the community college-going rate of high school graduates was stable, the number of high school graduates started what was to become nearly a decade of

annual declines. This, along with a decline in the number of veterans (who had exhausted their education benefits) led to declines in full-time enrollment.

The substantial decrease in enrollment in 1978 was due to passage of Proposition 13, which reduced the property tax support of community colleges by more than one-half. While the state General Fund assumed part of the loss, there was a 7 percent reduction in college budgets, which resulted in reductions in course offerings, particularly those taught by part-time faculty, and in student support services.

Funding for community colleges was restored in 1979 (AB 8). This higher budget level led to rapidly expanding enrollments. The community colleges recorded their peak enrollment total of 1,430,000 students in fall 1981.

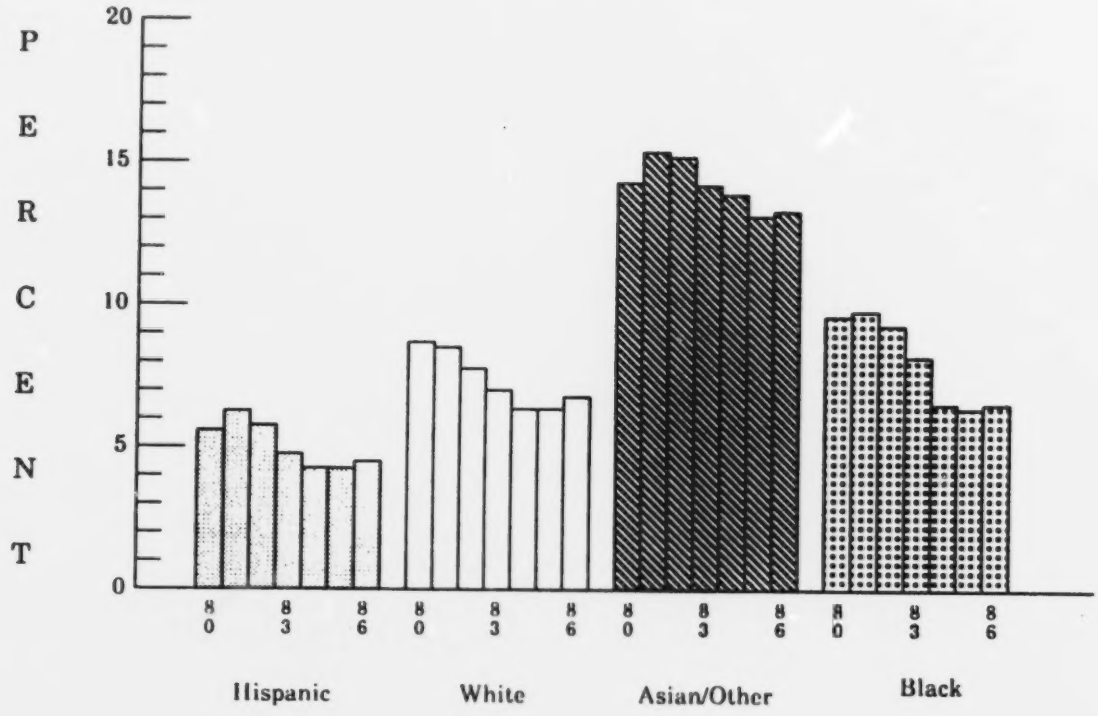
Noncredit enrollment, however, stabilized beginning in fall 1981 because of a decrease in the fiscal support of these courses. And, in 1982, the reduction in tax support for certain courses mentioned above, together with level funding (no increase) for other courses in both 1982 and 1983 led to significant reductions in the number of courses and services and, consequently, in enrollment. These enrollment declines took place despite substantial increases in the state's number of unemployed which normally would have led to higher enrollments.

In fall 1984, the new enrollment fee and several other factors counteracted the first full funding for community college budgets in three years to produce a 7% decline in enrollment. Then, as fees remained unchanged and college budgets were fully funded for cost-of-living increases and most ADA growth, enrollments stabilized in fall 1985 and exhibited a statewide increase of 4% in fall 1986. The latter increase appears due to several factors, among which are recruiting efforts by a number of districts and improved delivery of financial aid. These recent trends are discussed in more detail below as we week to answer the seven specific questions posed by the Legislature in AB 1XX (1984).

Thus, while California's population has increased by 12 percent since 1980, California community college enrollment has decreased by 11 percent. Largest percentage losses of enrollments have been in agriculture, consumer education, education, architecture, fine and applied arts, psychology, and social science. (See Chancellor's Office, 1986b). Less-than-compensating increases have been recorded in computer science, interdisciplinary studies (including English as a second language), commercial services and mathematics enrollments.

While California's Asian and Hispanic populations have increased dramatically since 1980, their community college enrollments have not. Consequently, the proportion of the state's Asians attending community colleges, while relatively high, has declined and the historically low proportion of Hispanics who enroll has also declined (See Figure 2).

Figure 2
ENROLLMENT IN CALIFORNIA COMMUNITY COLLEGES
AS PERCENT OF POPULATION
BY ETHNICITY
1980-1986



SOURCE: Appendix B.

The largest decline in California community college enrollment during this decade has been among Black students. Their community college-going proportion has declined by one-third -- much of that in 1984. Community colleges elsewhere in the country also have experienced decreases in Black enrollment, but not to the same degree. (See Appendix C.)

Deterring both Blacks and Hispanics from California postsecondary education are their low high school graduation rates and, even among graduates, relatively low numbers who are eligible for four-year institutions (California Postsecondary Education Commission, 1985). These patterns are consistent with those reported elsewhere in the country (see American Council on Education, 1985).

Thus, changes in funding policies and demographics, along with labor market fluctuations, continue to impact California community college enrollments just as they did during the late 1970s. Other factors, however, such as more rigorous academic standards, changes to academic calendars, and increased student fees also

have played an important part in the significant enrollment loss of the past five years. Of particular concern and the basic topic of this study is the impact of the new community college fee and financial aid policies adopted in 1984.

Findings

Increasing use of permissive fees had, prior to fall 1984, resulted in a gradual increase in the average student fee:

Year	Estimated Fees Collected per Credit Student	Increase over prior year
1980-81	$12	--
1981-82	16	$4
1982-83	25	9
1983-84	39	14
1984-85	82	43
1985-86	85	3

SOURCE: Appendix D and Chancellor's Office *Analysis of Permissive Fees*. Sacramento: the Office, January 1984.

Imposition of the enrollment fee in fall 1984 doubled the average fee paid by community college students across the state.

Since the use of permissive fees varied substantially among districts prior to 1984, the net change in cost facing students from the new policy also varied substantially from district to district. While the statewide net fee increase for the year was $43 per student, one district actually reduced its charges per student and the largest increase was $71 per student.

Because of this variation, the impact of the fee may be examined by statistically correlating the varying fee changes and the enrollment changes for each of the 70 districts. If fees did have an impact, then (other things being equal), those districts increasing their fees the most would be expected to experience the largest enrollment losses. Since other factors affected enrollment changes (other things were not equal), the analysis needs to rely in part on a statistical technique -- multiple regression -- where the specific impact of fees on student enrollment can be observed while holding the impact of other factors constant.

The Field Research Corporation (FRC) survey results and other data provide added support for answering the survey questions posed in AB 1XX. These data show changes in student socioeconomic characteristics from before the fee (spring 1984) to the first year (spring 1985) and second year (spring 1986) of the fee's

implementation. If the fee had an impact, one would expect (a) loss of low income and minority students who are unable to pay the fee and do not obtain financial aid, (b) enrollment of fewer part-time students taking six to eleven units since they appear to be the most effected by the fee's structure, and (c) possible changes in the kinds of students who enroll after the fee's imposition.

Results of the regression analysis, discussed more fully below and in Appendix D, indicate that the fee increase in 1984 did have a statistically significant impact on enrollment that was not compensated by the Board of Governors Financial Aid Program (BFAP). Those districts that increased their fees the most experienced the largest losses in enrollment. However, while the regression model is the most powerful statistical tool available for this purpose, it has limitations and the empirical results require careful interpretation. Moreover, several factors other than the fee also played a lesser, though statistically significant, part in the enrollment decline.

The data on student socioeconomic and other characteristics indicate that:

(1) the fee's structure had a greater impact on students taking six to eleven units than on other students who carried heavier or lighter academic loads;

(2) low income and Black students appear to have been affected more by the fee than were other students; and

(3) fewer students enrolled to upgrade their job skills and retention rates may have changed slightly after imposition of the fee.

Results from studies of fall 1984 enrollment changes in specific districts within California are generally consistent with the above findings from statewide studies. Three of these local studies help fill the gap in information about formerly enrolled students who did not continue from fall 1983 to fall 1984. The FRC data provide only an indirect indication of the reasons why students withdrew. This is accomplished by contrasting the characteristics of students enrolled after the fee's imposition with those of students enrolled before the fee.

Findings for each of the seven major study questions are presented below. In some cases, specific questions remain and the necessary additional work is described.

(1) Impact of the Fee on Student Enrollment

The decline of 7.5% in credit enrollment in fall 1984 can be attributed to several conflicting influences. For the first time in three years, there was a budgeted increase for inflation and enrollment growth and there was also a financial incentive in the community college funding mechanism to restore enrollment losses that had taken place in the prior year. Reacting to these

incentives, community colleges attempted to grow by increasing their number of course sections (by nearly 4%) over 1983. Despite this effort to increase "supply" and an increasing California adult population, credit enrollment decreased.

An examination of fall 1984 fee and enrollment changes for the 70 community college district reveals that those districts that implemented larger fee increases experienced larger enrollment losses:

Number of Districts	Range of Fee increases (dollars per student per year)	Average Enrollment Change per District (percent)
14	$-8.04 - 30.95	-4.0
14	32.48 - 39.75	-6.3
14	40.26 - 46.38	-7.2
14	46.58 - 56.16	-7.7
14	56.47 - 70.51	-10.3

SOURCE: Appendix D.

However, a number of other factors interacted along with the fee to produce the fall 1984 enrollment loss: improvements in employment, declining numbers of high school graduates, changes in community college academic calendars and other academic practices, actions by other providers of postsecondary education, such as the University and State University, and changes in local demographics. The key to determining the relative influence of each of these factors on enrollment is to examine the relationship of each to enrollment, while holding the impact of the others as constant as is possible. This is attempted through the use of a statistical regression model on district data and the results are described in Appendix D.

The results of that work show that the following factors contributed in a statistically significant way to the Fall 1984 credit enrollment decline:

(a) increased student fees

(b) improved employment

(c) fewer high school graduates

(d) earlier starting academic calendars

(e) low incomes

(f) continuation of some factors that led to the 1983 loss

Notably, the fee impacted full and half-time (those taking six to 11 units) enrollment, but not part-time enrollment (those taking less than six units). It also appears that the decline in full-time enrollment was stemmed somewhat through the addition of course sections by some relatively wealthy districts (as measured by their budget reserves). (More will be said below about the impact of the fee on academic load.) The impact of increased employment took place primarily within the large urban districts. Changes in academic calendars and in the number of high school graduates were significant both in and out of the large urban districts. Black students appear to have reacted to the new fee more than did students from other racial and ethnic groups.

One way of assessing the validity of these results is to estimate the "cost-elasticity" of enrollment that is suggested by the regression statistics. Cost-elasticity measures the percent change in enrollment that results from the percent change in cost due to the fee. The specific analysis of fall 1984 district data shows a cost-elasticity of -0.7; that is, when the influence of other factors is held constant, a 10% increase in the direct costs facing students resulted in a 7% decrease in enrollment. This value is consistent with the higher ranges of elasticity values found in similar studies, many of which deal with students at four-year institutions. In general, community college students appear to respond more to a given increase in cost than do four-year college students and, therefore, exhibit higher cost-elasticities. This is probably because community college students have lower average incomes, less prior educational preparation, and are more often self-supporting than four-year college students.

The percentage changes in (a) student costs from the 1984 enrollment fee, (b) employment, and (c) high school graduates, together with related cost-elasticities, suggest that the fee had a greater impact on enrollment than did either employment conditions or the decline in high school graduates, the next two most statistically significant factors (see Appendix D).

Community college enrollments in other states also declined in 1984, the first such decline since 1976 (see Appendix C). Elsewhere in 1984, changing conditions which are thought to impact enrollment were quite similar to those in California. The decline elsewhere (-3.7%) was just half that which took place in California (-7.5%) and, by contrast, was confined to full-time enrollment. Nationwide losses were attributable to the continuing decline in high school graduates and to an improving economy (potential students returning to work and either not enrolling or enrolling part-time). The greater loss in California, particularly among part-time students, may be explained by the first-time imposition of a fee that impacted students taking 6 to 11 units the most.

While the enrollment fee did not change in its second year (1985-86), other fees such as parking and course drop fees did change and fee-costs facing students increased by an average of $6 statewide. This increase was offset by improved

delivery of more BFAP monies to more students. Adjusting for the BFAP offset, the net increase in per-student fee-costs was $3.

In Fall 1985, the enrollment of those taking 12 or more units continued to decrease (-3.6%), while the number of part-time students increased by 1.2%. These compensating changes left total credit enrollment virtually unchanged (-0.1%). Thirty-two districts experienced declines while 38 districts experienced increases.

Like fall 1984, the net fall 1985 fee-cost changes faced by students in different districts varied, largely because of differences in the BFAP offset. Students in 23 districts experienced fee-cost reductions (the largest, -$15 per student) and students in the other 47 districts faced fee-cost increases (the largest, +$18 per student). While the 1985 variation and level of fee-cost changes were much less than those experienced by students in 1984, the analysis shows that (other things being equal) fee-cost changes had a statistical significant impact on fall 1985 credit enrollment changes (see Appendix D). Enrollment tended to increase in those districts where student costs decreased and vice versa. As noted, this appears due largely to variation in the improved delivery of BFAP aid. While unemployment was relatively stable statewide, variations in the economies of areas served by individual districts appear also to have had an effect on enrollment changes in those districts.

Fee data are not yet available for 1986-87 (the enrollment fee's third year). However, there has been little further change in fees, but continued further increase in BFAP offsets (as noted below, 23% more aid was delivered through 16% more awards in 1986-87 than in the prior year).

Credit enrollment increased by 4% between fall 1985 and fall 1986 (the enrollment fee's third year). Full-time enrollment increased (by 1.6%) for the first time since 1982 and part-time enrollment increased by 5.3%. As usual, there was considerable variation in the enrollment experience of individual districts, three-fourths increasing, while the other one-fourth decreased:

Rate of Enrollment	# of districts
Increase	
> 10%	14
5% - 10%	17
0% - 5%	21
Decrease	
0% - 5%	11
5% - 10%	7

A telephone survey of local staff (in 30 districts) about the reasons for increased or decreased fall 1986 enrollment reveals the importance of factors found

elsewhere in this study. Expanded efforts at recruitment, together with more effective delivery of BFAP, are felt to have contributed to large enrollment increases in a number of districts. Once again, area variation in unemployment contributed to both increases and decreases in enrollment. Some decreases in college enrollment were attributed to improved employment in the area and vice versa. Reduced course offerings caused enrollment losses in several districts while, by contrast, a return to later-starting academic calendars was felt to be significant in causing large enrollment increases experienced by two districts. The general increase in full-time enrollment resulted in part from the first general (statewide) increase in high school graduates since 1978.

In summary, the enrollment fee appears to have had a significant impact during its first year; an impact that was not appreciably compensated by the BFAP, as intended. Since that time, the fee has had little further impact, but improved delivery of BFAP assistance to students appears to be exerting a positive impact on community college enrollment.

(2) *Impact of the Fee on the Ethnic Distribution of Students*

The findings suggest that Blacks were affected by the fee to a greater extent than were other racial and ethnic groups. Disproportionate 1984 losses of younger Black students appear to have been due to a number of financial considerations (of which the fee was one) that led many of them to work, rather than enroll. As noted above, some of the enrollment loss also can be attributed to the decline in high school graduates. It does not appear that the slight increase in the proportion of Black high school graduates going directly to the four-year segments was a factor, however, in the community college enrollment losses (Chancellor's Office, 1986b).

The changes illustrated in the table below have resulted in increases in the proportions of Asian and Hispanic students along with the decrease in Black students since the imposition of the enrollment fee.

While the 1984 loss in Hispanic students was about the same as that for all students, it must be viewed in the context of the rapidly-expanding population of Hispanic adults in California. The result, as displayed in Figure 2 and Appendix B, is a decrease in an already low participation rate for this group.

The 1984 decline in Black students enrolled for credit was 19%. The largest statewide losses were among those Black students who would have been: taking 6 to 11 units, male, under 30 years of age, and attending during the day. (See Field Research Corporation, 1986.)

	Change in Credit Enrollment from Fall of Prior Year				
	1983	1984	1985	1986	1983 to 1986
Native American	-11%	-12%	-10%	+4%	-17%
Asian	+1	0	+5	+4	+9
Black	-11	-19	-1	+4	-17
Filipino	-2	-1	-3	+9	+5
Hispanic	-10	-9	+5	+8	+3
White	-11	-8	-1	+3	-4
Other	-12	-10	-13	-2	-24
Total	-10%	-7%	0	+4%	-4%

Source: Appendix B.

This profile is consistent with the experience found in a study by the Los Rios Community College District (Los Rios, 1985). In Los Rios, the 1984 enrollment loss was greatest among those Black students who had previously attended. In a sample survey of these individuals, employment or job conflicts were the reasons cited most often for not enrolling. (That employment was a significant factor in such decisions is confirmed by the district analysis in Appendix D.) One-third of the respondents in the Los Rios study indicated that financial reasons (including the fee) accounted for at least part of their decision.

A study of enrollment loss in the San Diego district revealed that, for Black students, general financial reasons (including fees, books, and employment) were most important in the decision not to return to community college. One-fourth of formerly enrolled students, surveyed in the San Bernardino district, indicated that job related concerns were the most important reason for not reenrolling in 1984, followed by personal reasons (San Bernardino, 1985). The fee and financial concerns were more important to minorities than to White students and were cited by Hispanics as the second most important reason for not reenrolling.

FRC data suggest there was a large drop in the number of Black high school graduates who enrolled after the fee (Field Research Corporation, 1986). This, however, may be part of a longer term trend. A 1985 study in the Peralta district found that the number of high school graduates in its service area, many of whom are Black, had gradually increased during this decade, but that the proportion attending a Peralta community college had decreased by nearly one-half (Peralta, 1985).

It is not clear why Black students were apparently affected by the new enrollment fee more than Hispanics, since both groups report similar incomes. FRC data do suggest, however, that Black students may have slightly greater economic need than Hispanic students to enter the job market instead of continuing their education. The recent losses in Black students in California exceed the losses for this ethnic group experienced in two-year colleges elsewhere in the country (see Appendix C).

In the second and third years following imposition of the enrollment fee, Asian and Hispanic enrollments have increased substantially. Enrollment of both Black and White students in credit classes decreased slightly in 1985 and increased in 1986, as did that of all other racial and ethnic categories.

It appears that those factors, including the new enrollment fee, contributing to the large loss of Black enrollment in 1984 are no longer operative. Hispanic enrollments have increased at a rate, in the past two years, that exceeds the increase in 18 to 64 year-old Hispanics in the state's population and is reflected by a moderate increase in their traditionally low rate of participation in community colleges. California's adult Asian population, by contrast, continues to enroll in community colleges at about three times the rate of California's Hispanic population (see Figure 2 and Appendix B).

In summary, the new fee appears to have impacted Hispanic and, particularly, Black students in 1984, but has had little apparent further impact on these groups since that time. In fact, Hispanic and, to a lesser extent, Black participation appears to now be increasing.

The overall result of these changes during the three years of the new enrollment fee, together with a number of unrelated changes in noncredit enrollment, is that the proportion of Black students has declined substantially, the proportion of Asians, Filipino and Hispanic students has increased, and the proportion of White students has decreased slightly (see next page).

(3) Impact of the Fee on the Income Distribution of Students

If the new enrollment fee in Fall 1984 had an impact on students that was not fully compensated by financial aid, the following effects could be expected:

(a) losses of low-income and possibly middle-income students,

(b) a relative increase in upper-income students, and

(c) possible changes in the working hours and borrowing patterns of students.

	Percent Distribution of All Students	
	Fall 1983	Fall 1986
Native American	1.5%	1.3%
Asian	9.0	9.5
Black	8.6	7.3
Filipino	2.1	2.3
Hispanic	12.0	14.5
White	63.1	62.8
Other	2.8	2.8
Total	100.0%	100.0%

Consistent with this logic, actual 1984 enrollment losses were greatest in those districts who residents report the lowest household incomes. Data from the FRC surveys on the reported incomes of students (adjusted for inflation) show there was a slight shift in the proportions of students from lower- and middle-income ranges to the upper ranges in the first year of the fee (measured in the FRC survey by students enrolled in spring 1985). This shift was reversed slightly in year two (see also Figure 3):

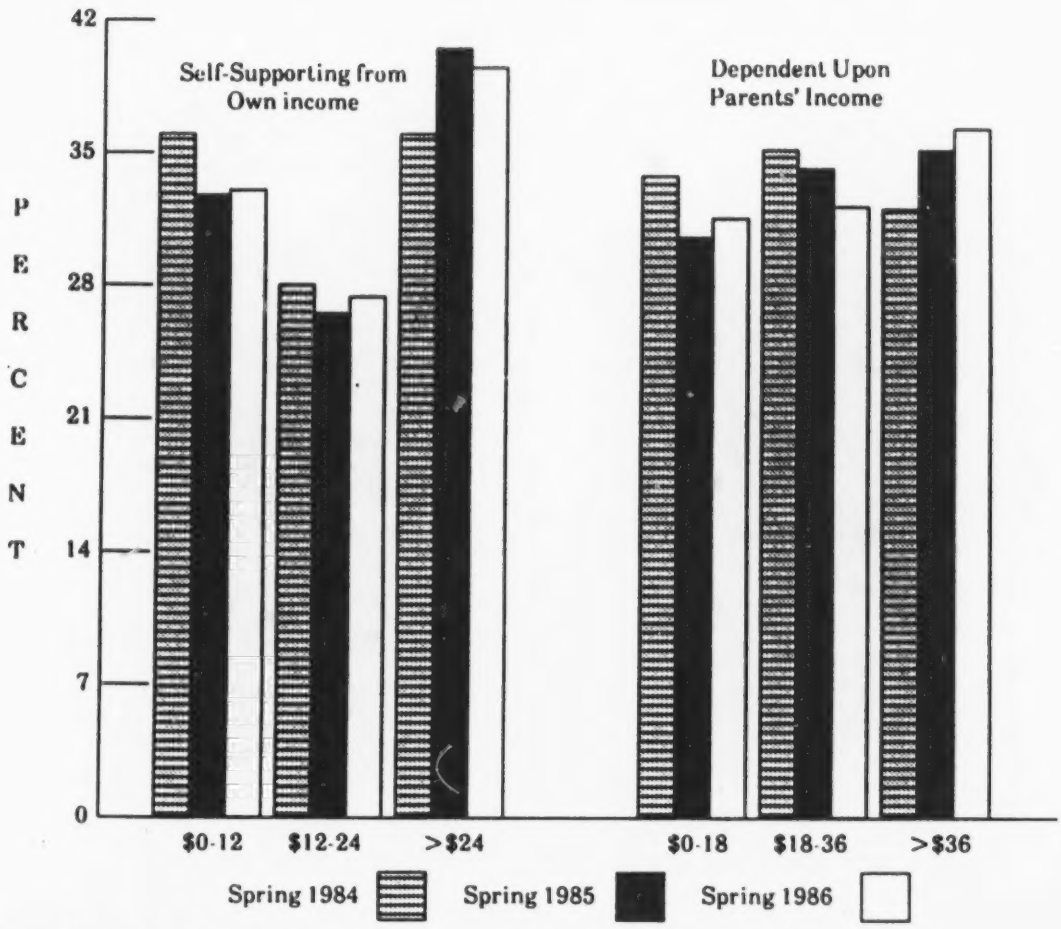
Distribution of Students by Income

	Self-supporting from own income					
	Pre-Fee		Post-Fee		Second Year of Fee	
$0 - 12,000	274,399	36.0%	242,804	32.8%	248,639	33.1%
$12,001 - 24,000	213,421	28.0	196,909	26.6	205,822	27.4
>$24,000	274,399	36.0	300,545	40.6	454,462	39.5
Total	762,219	100.0	740,258	100.0	751,175	100.0
	Dependent on parent's income					
	Pre-Fee		Post-Fee		Second Year of Fee	
$0 - 18,000	156,509	33.8%	130,767	30.6%	133,677	31.5%
$18,001 - 36,000	167,961	35.2	146,151	34.2	136,648	32.2
>$36,000	152,691	32.0	150,424	35.2	154,048	36.3
Total	477,161	100.0	427,342	100.0	424,373	100.0

Source: Appendix E.

As noted in Appendix E, the first-year shifts were statistically significant in the case of Black students who were dependent on parents' or others income. A

Figure 3
PERCENT DISTRIBUTION OF COMMUNITY COLLEGE
STUDENT BY ANNUAL INCOME
(in 000's)



Source: Appendix E.

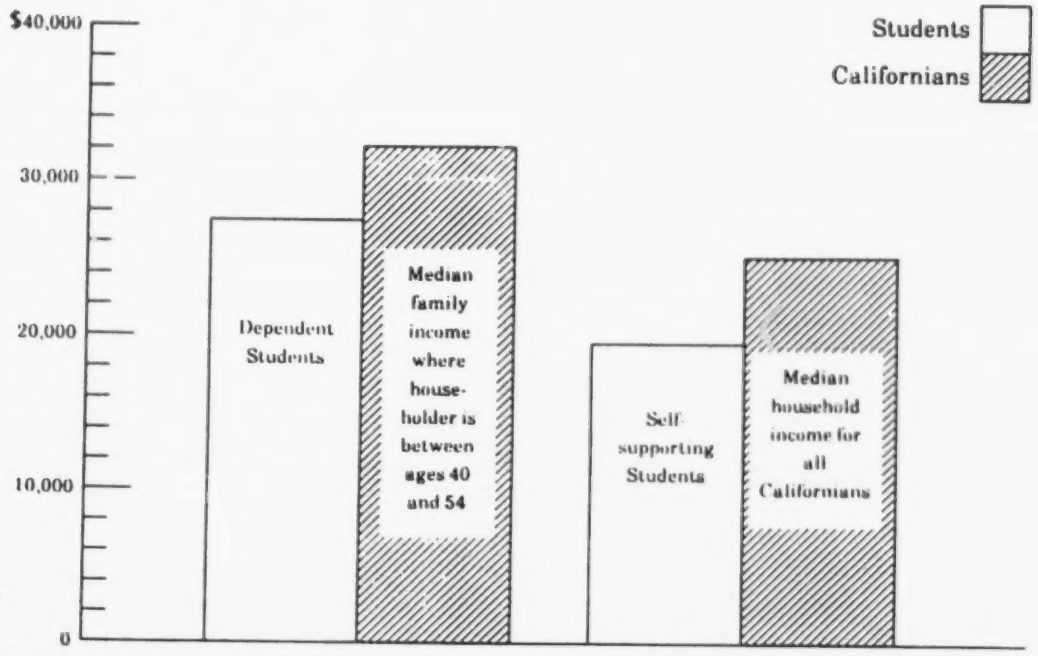
statistically significant shift from middle to upper incomes also was reported for self-supporting White students who were relying on their own incomes. There also was a decline in the percentage of students who are dependent on parents' income. This percentage of dependent students declined from 38.5% to 36.1% and the percentage of self-supporting students increased accordingly.

The slight second year shift back toward a greater proportion of low income students could reflect the fact that there appears to have been little added impact from fees, but there was a substantial increase in the number of students served and amount of financial aid delivered through the BFAP and through federal Pell Grants in the second year.

While relatively more students were self-supporting, there was no significant change in the working patterns of students over the three years of the survey -- four of five already worked (see Field Research Corporation, 1986.). Student borrowing declined in the first year of the fee, then increased in the second year. This pattern is consistent with the idea that following the fee's imposition, the remaining students were relatively more wealthy and had less need to borrow. Reaction to publicity on loan defaults also may have been a factor.

Despite the first year (of the fee) loss in enrollment of low income students, FRC data indicate that California community college students are less wealthy than those adults in the state's general population who are in similar circumstances. (see Figure 4.) At present, a more wealthy California taxpaying public subsidizes a part of the cost of educating a less wealthy community college student.

Figure 4
ANNUAL INCOME FOR CALIFORNIA COMMUNITY COLLEGE STUDENTS AND ALL CALIFORNIANS
1985



SOURCE: Appendix E.

A typical criticism of public tax support for postsecondary education is that lower income taxpayers subsidize students from higher income backgrounds. Thus, the redistributional consequences of postsecondary education are "regressive" and, therefore, do not satisfy equity objectives. This may be true for many four-year institutions and for community colleges in some other states, but it is not true in the case of California community colleges.

(4) Impact of Fee on the Distribution of Full- and Part-Time Students

Following the fee's imposition, the largest enrollment decline took place among those part-time students taking 6 to 11 units:

	Percent change in credit enrollment from prior year			
Units attempted	1983	1984	1985	1986
<3	-17	0	+8	+2
3-5	-11	-3	0	+7
6-8	-8	-20	0	+4
9-11	-7	-10	-3	+4
12-14	-6	-7	-3	+4
15+	12	-6	-5	-2
All students	-8	-7	0	+4

Source: Chancellor's Office, 1984, 1985, 1986c, 1987.

These changes led to the following distributions of students by academic load:

Units attempted	Percent distribution of credit students			
	1983	1984	1985	1986
12 or more	26.7	27.0	26.0	25.4
6 to 11.9	30.3	27.5	27.3	27.3
0 to 5.9	43.0	45.5	46.7	47.3

The disproportionate loss from 1983 to 1984 in students taking 6 to 11 units appears attributable to the structure of the new enrollment fee: $50 per semester for those taking six or more credit units and $5 per unit for those taking less than six credit units. The $50 fee for those students taking 6 to 11 units represented the largest relative increase in costs. Students taking 6 to 8 units, for instance, could drop one course, be subject to the $5 per unit charge, and pay less than one-half the $50 fee; or they could take an additional course at no additional cost.

That many students decided to shift from two courses to one in order to avoid the full impact of the fee is seen in the nominal losses in 1984 reported for those students taking less than six units. Aside from this shift, losses in students taking less than six units appear to have had little to do with the fee, but rather were the result primarily of changing employment conditions (see Appendix D).

While full-time students continue to decline as a proportion of total enrollment, they did increase in number from 1985 to 1986 -- the first such increase since 1983. This can be attributed largely to a statewide increase in the number of high school graduates -- the first such increase since 1978.

Two other shifts in the academic pursuit of students appear significant. First, the FRC data show there was little change in the academic objectives of students before and after the fee (Field Research Corporation, 1986). The one exception to this was that relatively fewer students were enrolled to upgrade their job skills after the fee's imposition. Of changes in the prior education reported by students after the fee, the most significant was the decline in Black high school graduates, noted above.

A second shift may have taken place in the retention rate of students. The FRC studies did find a significant change, after the fee, in the number of students who were enrolled as of first census, but who reported not being enrolled late in the term at the time of the survey. In 1984, 20% of those surveyed were in this category. After the fee, in 1985, this figure dropped to 15% and, in 1986, to 14%. This suggests that the retention rate of those enrolled after the fee was higher. This shift, however, does not appear to be confirmed by data on student hours from first to second census, gathered in the apportionment process:

RATES OF STUDENT ATTRITION DURING TERMS

YEAR	FIRST TO SECOND CENSUS[1]	FIRST CENSUS TO LATE IN TERM[2]
1980-81	13.8%	---
1981-82	13.7	---
1982-83	13.7	---
1983-84	11.5	20.0%
1984-85	11.5	15.0
1985-86	12.1	14.0

1 Based on student contact hours for all terms in the fiscal year, as reported to the Chancellor's Office for apportionments.

2 Based on a scientific sample of student enrollments during the spring semester conducted by the Field Research Corporation.

Apportionment data indicates that prior to fall 1983, the rate of attrition measured in student contact hours was relatively stable. After a fee for dropping courses after the first census was imposed in fall 1983, this attrition rate decreased by more than two points to a level of 11.5% for two years, then increased slightly to 12.1% in the third year. In fall 1984, when the enrollment fee was imposed, the apportionment data do not suggest any change in student retention, while the FRC Data shows a 5 percentage-point improvement.

The FRC study did not attempt to directly measure attrition but, rather, indirectly inferred it from two questions asking students if they were enrolled in a credit or noncredit class at the time of the self-administered student survey. By that time, some short-term classes may have been completed. Another reason for the apparent difference between apportionment and FRC data is the possibility of improved sampling by districts and the slightly reduced student response rates in the second and third years of the FRC study. Both factors could have contributed to the reported decline in attrition. These factors, however, would not appear to fully explain the shift in student attrition reported in the FRC survey.

(5) *Impact of the Fee on Changes in Staffing and Costs of Administering Fees*

As noted above, AB 1XX established a mandatory enrollment fee, abolished ten permissive fees, established a program of state financial aid to be administered by the Board and local districts (BFAP), and set aside 2% of the fee revenues to be used for costs of administering the fee.

Aside from managing fee deferrals, an activity new to districts, it was not clear that trading several permissive fees (which were not charged to all students) for one general fee (to be charged to all students -- though at differing rates) would generate any substantial increase in college workload. Administering the BFAP clearly was an added workload for district financial aid and business offices, however. While the 2% set-aside was not restricted, the legislative intent was that these revenues be used to meet the costs incurred in collecting the fee. It is estimated that the two percent feature produced $1.4 million in revenues that were retained by the districts during 1984-85. This amounted to just over $13,000 per college.

A survey by the Chancellor's Office on the effort expended by colleges during 1984-85 to manage the new fee (see Appendix F) indicates that:

(a) nearly nine of ten colleges either changed or established new procedures to collect the new fee,

(b) six of ten colleges required additional staffing for this purpose,

(c) over half of the colleges incurred substantial start-up costs, and

(d) three of five colleges feel there will be continuing costs from the fee.

College staff estimate they incurred the following costs per college for fee administration:

	1983-84	1984-85	1985-86
Total	$12,410	$36,993	$29,053
Added		24,583	16,643

On the average, each college added 0.6 full-time equivalent staff to help administer the new fee.

The estimated start-up costs were greater and the on-going costs would appear to be slightly greater than the revenue expected to be generated under the two percent feature of AB 1XX.

(6) *Impact of the Fee on the Availability of Federal, State, and Other Sources of Financial Aid*

With the imposition of the $100 per year fee, most students with financial need could have received an additional $50 in federal Pell Grant assistance and $50 from the BFAP, though the eligibility calculations made the actual result more complex. Thus, more Pell Grant aid would have been available in 1984 than before because of the fee. The average award did increase by $145 or about one-fourth:

Pell Grants in 86 California community colleges

Year	Recipients	$ Amount	$ per Recipient
1982 83	69,765	39,885,637	572
1983-84	66,201	37,906,389	573
1984-85	63,515	45,721,927	720
1985-86	67,306	57,834,228	859
1986-87	74,248	65,333,248	880

SOURCE: Chancellor's Office: Specially Funded Programs Unit, 1987.

The increase in average grant was due in part to the new enrollment fee, of which $50 typically was covered by the Pell Grant. The bulk of the increase, however, was due to changes in federal regulations which (a) increased, from

50% to 60%, the portion of costs to be covered by the Grants and (b) increased the allowable costs for commuting students who live away from home.

Unexpectedly, the number of Pell Grant recipients declined in 1984-85. This decline seems due to more complex federal regulations and the new Board program, which together (given no change in financial aid office staffing) resulted in substantial problems in the delivery of financial aid.

In its first year, the BFAP was three part: fee credits for those taking less than six units and not eligible for Pell Grants, fee waivers for those on public assistance, and Board grants. The use of fee waivers did not deter Pell Grant assistance, since a student's cost of education was calculated prior to this offset. Pell Grant assistance was deducted from the amount for which students could have been eligible through the BFAP. This added to confusion about the program and, therefore, was discontinued in the second year. This and other improvements in the delivery of financial aid, together with a greater awareness on the part of potential students, contributed to an increase in the number of BFAP awards and Pell Grant recipients in the program's second year.

The availability of other sources of federal aid such as supplementary grants (SEOG), college work study, loans, and specially directed aid does not appear to have been impacted appreciably by the new fee and by the BFAP.

The Board's intent was that fees not be paid from Extended Opportunity Programs and Services (EOPS) grants. While use of BFAP to pay the fee could have reduced EOPS need and, therefore, the grant, this was not significant. The fee and BFAP also had no discernible impact on Cal Grant assistance nor are they likely to have impacted levels of institutionally-supported student financial aid.

During 1984-85, the bulk of financial aid on which community college students relied was in the form of loans and, to a lesser extent, Pell Grants. The BFAP and other forms of state aid comprised 13% of aid packages. Just over three-fourths of the financial aid obtained by community college students comes from federal sources. Both federal and state financial aid increased in 1985-86, while local contributions fell by nearly half:

Financial Assistance Awarded to California Community College Students
1984-85, 1985-86

	$ Millions		Percent	
	1984-85	1985-86	1984-85	1985-86
Federal:	(141.8)	(159.2)	(77.1)	(79.3)
GSL, NDSL	68.5	65.8	37.3	32.8
Pell Grants	54.1	65.3	29.4	32.5
Other federal grants	8.2	11.2	4.5	5.6
Work-study	11.1	16.9	6.0	8.4
State:	(23.8)	(28.5)	(12.9)	(14.2)
BFAP	4.9	7.5	2.7	3.7
Cal Grants	10.3	11.7	5.6	5.8
EOPS	8.6	9.3	4.7	4.6
Institutional	18.3	13.0	10.0	6.5
Total	183.9	200.7	100.0	100.0

SOURCE: Chancellor's Office, Specially Funded Programs Unit, 1987.

Between 1980 and 1985, the utilization of aid sources nationally has shifted from grants to loans:

	Percent of Aid	
Aid Type	1980	1985
Grants	55	47
Loans	41	50
Work-study	4	3

SOURCE: Chancellor's Office, Specially Funded Programs Unit, 1986.

While 37%, rather than half, of the financial aid received by California community college students is in the form of loans, this is substantially higher than the level reported in 1980. Moreover, despite the recent increases in Pell assistance, community college students do not appear to use all the federal and state financial aid for which they are eligible. The new fee and BFAP seem to have had little impact on this situation. Many young students with transfer or first-job objectives and low incomes do not receive financial aid (see Appendix E). Just two of ten full-time community college students apply for Pell Grants and only one of these receives aid. Since four of five students work (virtually always off campus), there should be further analysis of the needs of those students who, with additional financial aid, might work less and attend college more consistently and successfully.

(7) *Impact of the Fee on the Administration and Distribution of the Financial Aid in this Act by the Chancellor's Office and by Districts*

The Board of Governors financial aid program (BFAP) was to help preserve access by targeting aid to low income students to offset the added cost of the new fee. A high correlation of Board aid per student and district income shows that where the income of district residents was lower, more financial aid per student was delivered (see Appendix D of Progress Report). Other findings, however, suggest that the first-year impact of the BFAP was modest and, in any case, less than expected.

BFAP regulations distributed funds to districts on the basis of estimates of household income derived from the U.S. Census, among other measures. Districts, in turn, report having distributed $4.9 million through 144,000 awards during 1984-85, an average award of $34:

	1984-85	1985-86	1986-87
Awards	144,288	183,985	214,446
Amount	$4,943,672	$7,514,234	$9,206,579
Amount per award	$ 34	$ 41	$ 43

SOURCE: Chancellor's Office, Specially Funded Programs Unit, 1987.

This aid amounted to an average statewide offset of $6 per student from the fee increase and varied from $1 to $31 per student in different districts, depending upon the socioeconomic characteristics of the area served. Analysis in Appendix D suggests that these offsets had relatively little impact on enrollment. While admittedly a gross measure, the offset would have been expected to significantly reduce the losses in enrollment, but it did not. This finding and the fact that just one-third of the available aid was delivered suggest that the BFAP did not have the full impact intended during its first year.

Eight percent of the students surveyed by FRC in Spring 1985 report having received BFAP and those ethnic groups with the lowest incomes reported the largest percentages of recipients. Despite the high correlation between low income and financial aid, FRC data show that more than half of those students (enrolled in spring 1985) who were on public assistance did not receive fee waivers even though they were automatically eligible. Also of concern is a group for which no data are available: those were in financial need, but received no aid and, as a result, did not enroll.

Since students responding to the FRC survey did not increase their work appreciably from before the fee to after the fee, it appears that few students reduced their academic load so as to work more to pay the fee. A number of students do appear to have reduced their load to avoid the fee. This does not

indicate, however, the number of students (noted above) who, with more financial aid, would work less and maintain or increase their academic load.

Three factors are believed to have contributed to the incomplete use of financial aid. First, eligibility forms and procedures, mandated by state law, were quite complex, particularly for individuals not familiar with such procedures. Second, community college financial aid offices did not have sufficient staff to undertake the BFAP along with more complex federal financial aid regulations. Finally, the pattern of distributing less aid than was available during the program's first year is consistent with that of new financial aid programs initiated elsewhere. It generally takes two to three years before news and details of aid programs reach all those potential students who could benefit.

Acknowledging the complexity of procedures, the Board acted in July 1985 to simplify the program (in phases) through regulation changes to (a) combine the three separate programs (fee credit, fee waiver, and Board grant) into one grant program, (b) eliminate the unit enrollment distinctions between those enrolled in more- and less than six units, and (c) modify the aid application procedures and forms. Staffing problems have been addressed in legislation that allocates 7% of financial aid funds for administrative purposes.

During the program's second year (1985-86), $7.5 million in aid was delivered to 185,000 students. This improvement appears to have been due largely to increased awareness on the part of students and more effective aid delivery. Financial aid office staffing was not increased until spring 1986 and the full impact of the regulation changes by the Board weren't felt until fall 1986 (the program's third year). As noted above, the fee offsets provided by the BFAP in 1985-86 do appear to have had a significant positive impact on community college enrollments.

A substantial increase (16%) in the number of BFAP awards and in the amount of aid distributed (up 23%) is reported for 1986-87, the third year of the program. These increases can be attributed to the simplified procedures and to efforts on the part of districts to better appraise individuals in their service area about enrollment and financial aid opportunities.

Further improvements in the delivery of financial aid are expected in 1987-88 as the result of a change in procedures to exempt certain students from having to complete forms required by other aid programs prior to receiving a BFAP award. This has enabled the use of a new, highly-simplified form.

The seven percent allowance for financial aid office staffing authorized beginning spring 1986 added $10,000 per college (about 0.5 full-time equivalent clerical staff). This amounts to an increase of less than five percent in financial aid office resources, and does not enable these offices to meet the

needs of community college students. A 1985 study by the Chancellor's Office showed that, based on comparable workload data, community college financial aid offices would need to increase their resources by one-third across the state (a total of about $8 million) in order to achieve the staffing levels authorized in budget formulae used by California State University. Chancellor's Office staff are currently updating the information on community college financial aid office workload in order to seek added funding for this purpose.

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STUDY OF FEE IMPACT: PROGRESS REPORT

Appendices

A. Section of AB 1XX Describing Study of Fee Impact
Fee Impact Study Advisory Committee

B. Community College Enrollment, Population and Participation Rates, 1980-1985

C. National Data

D. Analysis of District Changes

E. Student Socioeconomics, 1984 to 1986

F. Fee Administration

APPENDIX A
SECTION OF AB 1XX (1984)
DESCRIBING STUDY OF FEE IMPACT

SEC. 17. (a) It is the intent of the Legislature to ensure that the imposition of a mandatory fee does not impair access to, or the quality of, California community colleges. To achieve this purpose, the Chancellor of the California Community Colleges, in consultation with the California Postsecondary Education Commission, shall conduct a study of the impact of the mandatory fee upon California community colleges. The study shall determine the fee's impact upon all of the following:

(1) Student enrollments

(2) Ethnic distribution of students.

(3) Income distribution of students.

(4) The distribution of full-time and part-time students.

(5) Changes in the staffing requirements and costs of administration.

(6) The availability of federal, state, and other sources of financial aid to community college districts.

(7) The administration and distribution of the financial aid prescribed by this act by the chancellor's office and at the district level.

The chancellor may collect from community college districts any data necessary to conduct the study.

Based upon the study, the chancellor shall submit his or her findings and recommendations to the Joint Legislative Budget Committee and the California Postsecondary Education Commission in a progress report on or before January 1, 1987, and in a final report on or before July 1, 1987.

(b) The chancellor shall conduct the study pursuant to subdivision (a) in consultation with an advisory committee appointed by the chancellor and composed of representatives from community college districts, the Department of Finance, and the Office of the Legislative Analyst. District representatives on the advisory committee may include students, faculty members, administrators and governing board members.

(c) The California Postsecondary Education Commission shall submit to the Legislature its written comments and recommendations regarding the progress report and the final report filed by the chancellor pursuant to subdivision (a).

CHANCELLOR'S FEE IMPACT ADVISORY COMMITTEE

1987

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Los Rios CCD

Nancy Conrath
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Chancellor's Office

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APPENDIX B

Table 1
ESTIMATE OF CALIFORNIA COMMUNITY COLLEGE ENROLLMENT, POPULATION AND PARTICIPATION RATES BY RACE AND ETHNICITY
1980 TO 1981

	1980	1981		1982		1983		1984		1985		1986		1980-86
ETHNIC GROUP	NUMBER	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	CHANGE
WHITE														
ENROLLMENT	923,722	948,398	2.7	856,693	-9.7	777,597	-9.2	739,153	-4.9	738,002	-0.2	768,075	4.1	-16.8
TOTAL POPULATION (000s)	10,918	10,999.5	0.7	11,081	0.7	11,162.5	0.7	11,244	0.7	11,311	0.6	11,379	0.6	4.2
PARTICIPATION RATE	8.46	8.62	1.9	7.73	-10.3	6.97	-9.8	6.57	-5.7	6.52	-0.8	6.75	3.5	-20.2
HISPANIC														
ENROLLMENT	162,833	173,109	6.3	175,222	1.2	164,411	-6.2	153,502	-6.6	163,411	6.5	176,131	7.8	8.1
TOTAL POPULATION (000s)	2,885	3,042.5	5.5	3,202	5.2	3,361.5	5.0	3,523	4.8	3,696	4.9	3,877	4.9	34.4
PARTICIPATION RATE	5.64	5.69	0.9	5.47	-3.9	4.89	-10.6	4.36	-10.8	4.42	1.4	4.54	2.7	-19.5
BLACK														
ENROLLMENT	118,821	113,187	-4.2	115,439	2.0	106,092	-8.1	86,855	-18.1	86,306	-0.6	89,069	3.2	-25.0
TOTAL POPULATION (000s)	1,199	1,225.75	2.2	1,252.5	2.2	1,279.25	2.1	1,306	2.1	1,333	2.1	1,361	2.1	13.5
PARTICIPATION RATE	9.90	9.23	9.4	9.21	-0.2	8.29	-10.0	6.65	-19.8	6.47	-2.7	6.54	1.0	-33.9
ASIAN/OTHER														
ENROLLMENT	178,042	195,940	10.1	196,755	0.4	190,672	-3.1	188,089	-1.4	187,829	-0.1	192,048	2.2	7.9
TOTAL POPULATION (000s)	1,096	1,151.5	5.1	1,207	4.8	1,262.5	4.6	1,318	4.4	1,376	4.4	1,437	4.4	31.1
PARTICIPATION RATE	16.2	17.0	4.9	16.3	-4.1	15.1	-7.4	14.3	-5.3	13.65	-4.5	13.36	-2.2	-17.5
TOTAL ENROLLMENT (000s)	1,383.4	1,430.7	3.4	1,344.1	-6.1	1,239.4	-8.4	1,167.6	-5.8	1,175.5	0.7	1,225.3	4.2	-11.4
TOTAL POPULATION (000s)	16,099	16,422	2.0	16,745	2.0	17,068	1.9	17,391	1.9	17,716	1.9	18,052	1.9	12.1
PARTICIPATION RATE	8.59	8.71	1.3	8.02	-7.9	7.26	-9.5	6.71	-7.6	6.63	-1.2	6.78	2.3	-21.1

Ethnic Enrollment Estimate Metholology

In every year, there is a percentage of students whose ethnicity is unknown or unreported. Additionally, in some years, individual colleges did not report enrollment data in time to be incoporated into the Chancellor's Office Information System. To adjust for these data deficiencies, these estimates of ethnic enrollment are based on two processes: (1) distributing the state total unknown in the same proportion as the state total known for colleges which reported data, and (2) utilizing the succeeding year's ethnic distribution for colleges which did not report data and applying these percentages to the colleges' enrollment headcount. Population data are based on estimates of 18 to 64 year-olds by the Center for the Continuing Study of the California Economy, Palo Alto, 1986. Data were not available for Fall 1986 for ethnic adult populations. For purposes of these estimates, it was assumed that the increases for Fall 1986 were the same as Fall 1985.

Table 2
ESTIMATE OF CALIFORNIA COMMUNITY COLLEGE ENROLLMENT
BY RACE AND ETHNICITY
FALL CREDIT ENROLLMENT
1980 THRU 1986

	1980	1981		1982		1983		1984		1985		1986		1980-86
CATEGORY	NUMBER	NUMBER	% CHANGE	NUMBER	% CHANGE	NUMBER	% CHANGE	NUMBER	% CHANGE	NUMBER	% CHANGE	NUMBER	% CHANGE	% CHANGE
WHITE														
ENROLLMENT	822,396	860,462	4.6	779,705	-6.9	701,476	-11.3	655,794	-7.7	651,567	-0.6	673,264	3.3	-18.1
HISPANIC														
ENROLLMENT	129,290	135,818	5.0	144,429	9.3	134,202	-9.6	122,479	-8.7	128,095	4.6	138,387	8.0	7.0
BLACK														
ENROLLMENT	108,069	103,675	-4.1	106,402	5.4	96,808	-11.4	78,734	-18.7	77,916	-1.0	80,942	3.9	-25.1
ASIAN OTHER														
ENROLLMENT	65,242	86,506	32.6	82,984	-1.4	83,527	1.0	83,799	0.3	87,913	4.9	91,329	3.9	39.9
FILIPINO														
ENROLLMENT	16,422	18,209	10.9	22,755	28.4	22,881	2.1	22,738	-0.6	22,039	3.1	24,030	9.0	46.3
AMER INDIAN														
ENROLLMENT	17,794	18,744	5.3	18,790	3.0	17,213	-10.8	15,222	-11.6	13,743	-9.7	14,250	3.7	-19.9
OTHER														
ENROLLMENT	30,995	30,056	-3.0	32,650	11.5	29,492	-12.0	26,537	-10.0	23,038	-13.2	22,528	-2.2	-27.3
TOTAL ENROLLMENT	1,190,208	1,253,470	5.3	1,187,614	-5.3	1,085,599	-9.9	1,005,304	-7.5	1,004,311	0.1	1,044,730	4.0	-12.2

Enrollment data were drawn from the Chancellor's Office Information Services final reports. In some instances, ethnicity data were estimated for specific colleges which were not included in the final report. Estimates were based on the ethnicity and credit load distributions for the succeeding year. These proportions were applied to the missing year to estimate the credit/ethnic enrollments.

Table 3
ESTIMATE OF CALIFORNIA COMMUNITY COLLEGE ENROLLMENT
BY RACE AND ETHNICITY
FALL NONCREDIT ENROLLMENT
1980 THRU 1986

	1980	1981		1982		1983		1984		1985		1986		1980-86
CATEGORY	NUMBER	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	NUMBER	CHANGE	% CHANGE
WHITE														
ENROLLMENT	101,376	87,936	-13.3	77,089	-12.3	76,121	-1.2	83,359	9.5	86,435	3.7	94,811	9.6	-6.5
HISPANIC														
ENROLLMENT	33,543	37,291	11.2	30,793	-17.4	30,209	-1.9	31,023	2.7	35,316	13.8	37,744	6.9	12.5
BLACK														
ENROLLMENT	10,752	9,512	-11.5	9,037	-5.0	9,284	2.7	8,121	-12.5	8,390	3.3	8,127	-3.1	-24.4
ASIAN OTHER														
ENROLLMENT	34,742	31,218	-11.3	31,748	1.7	28,355	-10.7	28,911	2.0	29,965	3.6	28,353	-5.3	-18.3
FILIPINO														
ENROLLMENT	5,377	3,567	-33.7	3,235	-9.3	3,484	7.7	3,898	11.9	4,110	5.4	4,154	1.1	-22.7
AMER INDIAN														
ENROLLMENT	1,932	1,550	-19.8	1,539	-0.7	1,478	-4.0	1,624	9.9	1,541	-5.1	1,625	5.5	-15.8
OTHER														
ENROLLMENT	5,538	6,090	10.0	3,054	-49.8	4,242	38.9	5,360	26.4	5,480	2.2	5,799	-5.4	4.4
TOTAL ENROLLMENT	193,260	177,164	-8.3	156,505	-11.7	153,781	-1.7	162,296	5.5	171,237	5.5	180,593	5.5	-6.6

Enrollment data were drawn from the Chancellor's Office Information Services final reports. In some instances, ethnicity data were estimated for specific colleges which were not included in the final report. Estimates were based on the ethnicity and credit load distributions for the succeeding year. These proportions were applied to the missing year to estimate the credit/ethnic enrollments.

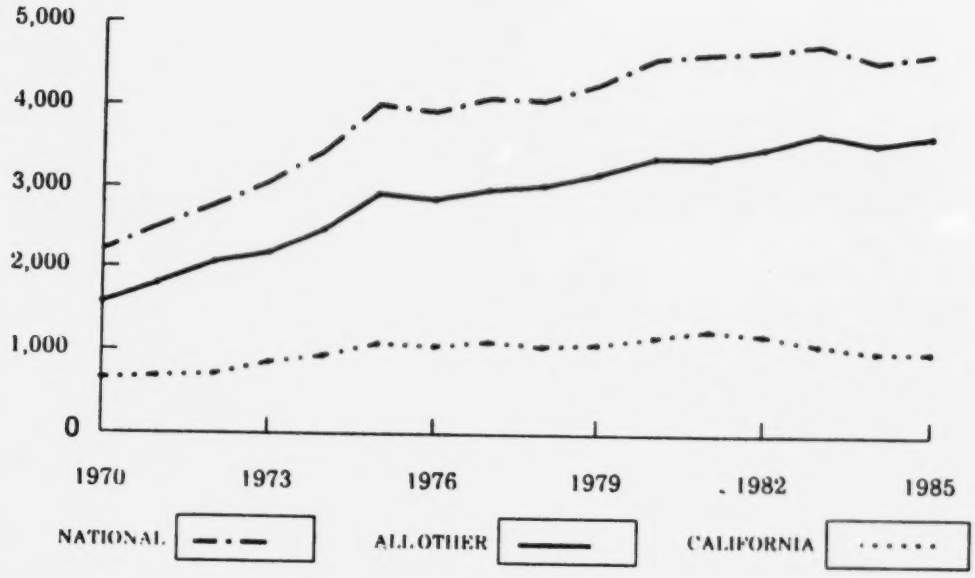
APPENDIX C

STUDY OF FEE IMPACT
NATIONAL DATA

Enrollment Trends

Since 1970, credit enrollment in community colleges in other states has grown at more than twice the rate as California. (See Figure 1 and Table 1.) California

Figure 1
COMMUNITY COLLEGE CREDIT
ENROLLMENT
(in 000's)



enrolled 22% of the nation's community college students by 1985, although this figure was down from 28% in the early 1970s and 27% as recently as 1981. Only in 1976 and 1984 did community college enrollments in other states decline. These declines were less than corresponding declines in California, however.

In 1984, those conditions thought to impact enrollment were changing in other states in ways that were generally similar to California:

	Percent Change California 1983 to 1984	Other States Percent Change 1983 to 1984
Adult Population	+1.6	+1.3
High School Graduates	-1.4	-3.7
Student Costs	+11.0	N/A
Average Annual Unemployment	-17.4	-20.3
Per Capita Income	+9.1	+9.7
Total Credit Enrollment	-7.5	-3.7
Full-Time Enrollment	-6.2	-6.9
Part Time Enrollment	-8.5	-0.6

The enrollment decline elsewhere was just over half the decline that took place in California and, by contrast, was confined to full-time enrollment (see Table 2). This would appear to be attributable to the continuing decline in high school graduates as well as an improving economy (declining unemployment with potential students returning to work and either not enrolling or enrolling part-time).

The greater loss in California, particularly among part-time students, could be explained by the first-time imposition of a fee that impacted students taking 6 to 11 units the most.

After substantial increases in the late 1970s, minority enrollments in community colleges have decreased during the first half of the 1980s (see Table 3). This is due primarily to minority losses in California community colleges over the same period (see Table 4). California community colleges now enroll two-thirds of the Asians and nearly half of the Hispanics attending the nation's community colleges. Black enrollment in California community colleges declined by more than one-fourth between 1980 and 1984, a greater rate of decline than in other states. This may be due, in part, to the impact of the first-time enrollment fee in 1984. At the same time, enrollment of White students declined in California and increased elsewhere.

Despite the recent enrollment declines, California still enrolled a greater proportion of its adult population (1of every 17) than any other state in the Fall 1984 (Table 5). The next closest state is Arizona where 1 in 19 adults are enrolled, while the national average is 1 in 52.

Fees

Annual fees charged to full-time students by community colleges across the country are displayed also in Table 5. The average (median) charge among the states in Fall 1984 was $604. This is up by one-third from the level reported for Fall 1980: $446 per student.

Despite its new enrollment fee, California continued to charge the least of any state in 1984. Hawaii was the next lowest at $245 and the highest average charge among those states with an appreciable number of community colleges was Ohio at $1,374 per student.

Total Costs

Who bears the cost of community college education under current policy? To assess this question requires that all costs, both those of the college and those of the student, be considered.

College costs are well documented. During 1985-84, California community colleges spent an estimated $2,548 per ADA -- $1,500 per enrolled student -- on credit instruction, student services, and other supporting services.

Student costs can be estimated from data collected in the FRC surveys. Direct, out-of-pocket costs facing students include fees, transportation, books and supplies, and child care. (Housing and food are excluded, since they would be incurred even if an individual were not a student.)

Added to the direct costs facing students are the costs represented by the opportunities for work and other pursuits that are lost because of the time needed for commuting, class attendance and studying. Since four of five community college students work full or part-time, it appears they forego other pursuits that can't be valued in terms of dollars.

Students responding to the FRC survey report spending an average of $436 during 1984-85 on the direct, out-of-pocket costs described above; $354 for books and supplies, transportation and child care, along with $82 for fees. No estimates are available for the value of foregone opportunities. These costs were adjusted by a financial aid subsidy which, for Pell Grants -- the major component of aid -- averaged $50 per student.

Thus, under current policy, California community college students support about one-fifth (probably more, if foregone opportunities could be included) of the total annual costs of their education:

Student cost:	Direct, out-of-pocket	$ 436
	Foregone opportunities	?
	Less financial aid	- 50
	Total	$ 386
Public cost:	Institutional cost	$ 1,500
	Plus financial aid	50
	Less fee	- 64
	Total	$ 1,486

This may be contrasted with the practice of other community colleges elsewhere in the country. During 1984-85, the average (median) annual fee charge per full-time student in community colleges in states other than California was $602. During that same year, it is estimated that $219 per student in the form of Pell Grants (the bulk of financial aid) was distributed to community college students outside California. Assuming that the other costs per full-time student for books and supplies, transportation, and child care in other states were not substantially different than those in California ($642) that year, the approximate cost to the full-time student elsewhere can be estimated at $1,242.

Institutional costs in community colleges outside California are estimated to have been about $3,400 per FTE or full-time student during 1984-85. Taking these data, the distribution of total community college costs between students and the public can be calculated for states other than California. In general, full-time students support one-fourth of the total cost. It is possible that part-time students support more than that proportion of their costs, depending upon the way their fees are assessed in other states:

Student Cost:	direct, out-of-pocket	$1,242
	foregone opportunities	?
	less financial aid	>219
	total	>1,023
Public Cost:	institutional cost	$3,400
	plus financial aid	>219
	less fee	602
	total	>3,107

Table 1
COMMUNITY COLLEGE CREDIT ENROLLMENT TRENDS
UNITED STATES AND CALIFORNIA
1970 TO 1986
(in 000s)

FALL YEAR	NATIONAL	% CHANGE	CALIFORNIA	% CHANGE	ALL OTHER	% CHANGE
1970	2,223		652		1,571	
1971	2,491		695		1,797	
1972	2,772	11.3	724	4.3	2,074	14.0
1973	3,032	9.4	853	17.7	2,179	6.4
1974	3,429	13.1	960	12.5	2,469	13.3
1975	4,002	16.7	1,104	15.0	2,898	17.4
1976	3,917	-2.1	1,075	-2.7	2,842	-1.9
1977	4,079	4.1	1,118	4.0	2,961	4.2
1978	4,065	-0.3	1,049	-6.2	3,016	1.9
1979	4,250	4.6	1,101	5.0	3,149	4.4
1980	4,556	7.2	1,190	8.1	3,366	6.9
1981	4,630	1.6	1,254	5.4	3,376	0.3
1982	4,666	0.8	1,188	5.3	3,478	3.0
1983	4,747	1.7	1,086	8.6	3,661	5.3
1984	4,534	4.5	1,005	7.5	3,529	-3.7
1985	4,640	2.3	1,004	-0.1	3,629	2.8
1986 (EST.) TOTAL CHANGE	2,417	108.7	352	54.0	2,058	130.9

SOURCE: National Center for Educational Statistics; Chancellor's Office Management Information Services. National data includes enrollment in U.S. service schools and nonresident aliens

Table 2
CREDIT ENROLLMENT BY UNIT LOAD
CALIFORNIA AND ALL OTHER STATES
(in 000s)

	FULL-TIME				PART-TIME			
YEAR	ALL OTHER	% CHANGE	CALIF	% CHANGE	ALL OTHER	% CHANGE	CALIF	% CHANGE
1970	882	10.5	283	9.2	689	19.6	369	7.4
1971	995	12.8	296	4.5	796	15.5	399	8.1
1972	1,055	6.0	285	-3.7	976	22.6	440	10.1
1973	1,129	7.0	303	6.4	1,030	5.5	550	25.1
1974	1,185	5.0	324	7.0	1,260	22.3	635	15.7
1975	1,389	17.2	372	14.6	1,477	17.2	732	15.3
1976	1,336	3.8	328	-11.7	1,472	-0.3	747	1.9
1977	1,338	0.1	316	3.6	1,586	7.7	802	7.4
1978	1,273	-4.9	285	9.8	1,706	7.6	764	-4.7
1979	1,420	11.5	283	-0.8	1,695	-0.6	818	7.1
1980	1,483	4.4	296	4.6	1,883	11.1	894	9.4
1981	1,440	-2.9	308	4.1	1,935	2.8	946	5.8
1982	1,463	1.6	309	0.3	2,010	3.9	879	-7.2
1983	1,539	5.2	290	-6.1	2,101	4.5	795	-9.6
1984	1,433	-6.9	272	6.2	2,089	-0.6	733	8.5
1985			261	3.3			743	1.4

SOURCE: Chancellor's Office Management Information Services and NCES. National data includes enrollment in U.S. service schools and nonresident aliens.

Table 3
TRENDS IN TOTAL CREDIT ENROLLMENT OF HIGHER EDUCATION BY LEVEL OF INSTITUTION AND RACE/ETHNICITY: FALL 1976 TO FALL 1984
(in 000's)

RACE/ETHNICITY AND CITIZENSHIP	NUMBER ENROLLED			1976-1980 % CHANGE	NUMBER ENROLLED		1980-1984 % CHANGE
	1976	1978	1980		1982	1984*	
Four-Year Institutions	7,090	7,187	7,548	6.5	7,629		
White, Non-Hispanic	5,984	6,013	6,259	4.6	6,289		
Total Minority	930	973	1,048	12.7	1,070		
Black, Non-Hispanic	603	611	633	5.0	611		
Hispanic	173	190	216	29.0	228		
Asian or Pacific Islander	118	137	162	37.3	193		
American Indian/ Alaskan Native	35	35	37	5.7	38		
Non-Resident Alien	176	200	241	36.9	269		
Two-Year Institutions	3,880	4,028	4,490	15.7	4,699	4,756	5.9
White, Non Hispanic	3,077	3,167	3,532	14.8	3,657	3,818	8.1
Total Minority	761	810	894	17.5	981	873	-2.3
Black, Non-Hispanic	429	443	468	9.1	483	418	-10.7
Hispanic	210	227	255	21.4	291	262	2.7
Asian or Pacific Islander	79	97	124	57.0	158	152	22.6
American Indian/ Alaskan Native	41	43	47	14.6	49	41	-12.8
Non-Resident Alien	42	52	64	52.4	61	65	1.6
Total	10,970	11,215	12,038	9.7	12,328		
White	9,061	9,180	9,791	8.1	9,946		
Total Minority	1,691	1,783	1,942	14.8	2,051		
Black	1,032	1,054	1,101	6.7	1,094		
Hispanic	383	417	471	23.0	519		
Asian/Pacific Islander	197	234	286	45.2	351		
Native American	76	78	84	10.5	87		
Non-Resident Alien	218	252	305	39.9	330		

NOTE: Excludes enrollment in U.S. Service Schools. Numbers in thousands; percentages may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, unpublished tabulations (December 1983) and National Center for Educational Statistics, Opening Fall Enrollment, Fall 1982, unpublished tabulations (December 1983).

*1984 data were supplied via telephone from the American Council on Education.

Table 4
NATIONAL AND CALIFORNIA TRENDS IN TWO-YEAR COLLEGE CREDIT ENROLLMENT BY ETHNICITY
(in 000s)

CATEGORY	NATIONAL (EXCEPT CALIFORNIA) 1980	1982	1984	1980-84 % CHANGE	CALIFORNIA 1980	1982	1984	1980-84 % CHANGE
TOTAL TWO-YEAR	3,236	3,450	3,686	13.9	1,190	1,188	1,005	-15.5
WHITE & OTHER	2,606	2,845	3,136	17.1	853	812	682	-20.0
TOTAL MINORITY	557	605	550	-1.3	337	376	323	-4.2
BLACK	360	377	339	-5.8	108	106	79	-26.9
HISPANIC	126	147	140	-11.1	129	144	122	-5.4
ASIAN/PACISL.	42	52	45	7.1	82	106	107	30.5
AMER IND	29	28	26	10.3	18	19	15	-16.7

SOURCE: Chancellor's Office Management Information Services and NCES. For comparison purposes with Table 3, it should be noted that "total" national figures in Table 4 do not include nonresident aliens

Table 5
NATIONAL PUBLIC COMMUNITY COLLEGES
ENROLLMENT AND FEES
FALL 1984

STATE	ANNUAL FEES[1] AVG.	RANK LOW/HIGH	LOW	HIGH	ENROLLMENT[2] NO.	PART. RATE[3] %	RANK	NO. COLLEGES
ALABAMA	$ 527	15	$ 155	$ 622	55,065	1.92	25	44
ALASKA	592	23	334	643	16,729	4.95	3	10
ARIZONA	515	13	120	3,500	114,107	5.20	2	16
ARKANSAS	510	12	432	600	12,324	0.73	46	9
CALIFORNIA	104	1	99	142	1,086,119	5.73	1	106
COLORADO	739	36	402	922	50,445	2.18	21	15
CONNECTICUT	549	19	280	654	41,999	1.75	28	17
DELAWARE	627	28	627	627	7,130	1.56	32	1
FLORIDA	557	20	432	1,215	211,150	2.50	15	28
GEORGIA	725	34	675	925	37,898	0.91	42	16
HAWAII	246	3	240	255	21,185	2.82	12	7
IDAHO	632	29	614	650	4,076	0.61	48	2
ILLINOIS	560	21	336	864	356,607	4.24	4	50
INDIANA	1,128	45	819	1,750	34,391	0.87	43	14
IOWA	904	40	630	1,233	40,297	1.90	26	18
KANSAS	477	10	0	790	42,827	2.40	17	21
KENTUCKY	546	17	468	1,124	25,120	0.94	41	14
LOUISIANA	474	9	394	550	13,908	0.45	49	5
MAINE	931	41	645	1,592	9,495	1.12	38	8
MARYLAND	701	32	540	1,089	98,276	3.02	10	17
MASSACHUSETTS	953	43	734	2,445	67,961	1.54	34	17
MICHIGAN	707	33	456	1,002	204,351	3.11	8	28
MINNESOTA	1,082	44	882	1,688	42,465	1.40	36	22
MISSISSIPPI	481	11	200	620	38,971	2.17	22	17
MISSOURI	471	8	225	576	57,160	1.55	33	13
MONTANA	418	6	390	450	3,584	0.62	47	3
NEBRASKA	600	24	480	872	21,328	1.84	27	9
NEVADA	547	18	0	660	20,534	3.04	9	4
NEW HAMPSHIRE	1,389	48	1,232	1,500	5,248	0.74	45	5
NEW JERSEY	785	38	568	875	113,232	2.01	23	19
NEW MEXICO	540	16	20	3,935	23,069	2.34	19	16
NEW YORK	1,231	46	583	1,485	269,053	2.02	22	43
NORTH CAROLINA	188	2	60	240	113,573	2.49	16	57
NORTH DAKOTA	893	39	630	1,150	7,633	1.57	31	6

Table 5
(continued)
NATIONAL PUBLIC COMMUNITY COLLEGES
ENROLLMENT AND FEES
FALL 1984

STATE	ANNUAL FEES[1] AVG.	RANK LOW/HIGH	LOW	HIGH	ENROLLMENT[2] NO	PART RATE[3] %	RANK	NO. COLLEGES
OHIO	$1,374	47	575	2,874	152,655	1.94	24	52
OKLAHOMA	393	5	184	568	55,870	2.36	18	15
OREGON	604	25	540	690	67,142	3.42	7	15
PENNSYLVANIA	933	42	750	1,144	91,617	1.02	40	14
RHODE ISLAND	740	37	740	740	12,317	1.68	29	1
SOUTH CAROLINA	618	26	175	940	37,071	1.58	30	21
SOUTH DAKOTA	0		0	0	.	.	.	0
TENNESSEE	520	14	516	526	48,677	1.41	35	14
TEXAS	258	4	80	461	330,185	2.93	11	58
UTAH	543	30	243	786	10,473	1.03	39	5
VERMONT	1,697	49	1,030	2,364	2,936	0.76	44	2
VIRGINIA	619	27	549	980	108,454	2.58	14	24
WASHINGTON	569	22	194	705	129,857	4.08	5	27
WEST VIRGINIA	660	31	400	922	18,390	1.30	37	10
WISCONSIN	736	35	464	1,023	95,082	2.73	13	34
WYOMING	419	7	384	445	13,014	3.71	6	7
MEDIAN	604		439	872	41,999	1.92		15
MEAN	674		436	1,069	90,634	2.14		19.9

SOURCE: 1985 Community, Technical and Junior College Directory, American Association of Community and Junior Colleges, Washington, D.C.

1 Annual Fees are defined as: tuition and required fees for a full-time student for the full 1984-85 academic year, and where applicable are for those students living within the state and within the institutional district.

2 Enrollment is defined as: the total headcount of full-time and part-time students enrolled for credit courses only.

3 The participation rate is divided by adult (18 years and older) population into the enrollment of each state. State population estimates are from the U.S. Current Population Survey, 1985.

REFERENCES FOR APPENDIX C

Unless otherwise noted, the following references were used to derive the data in Appendix C:

Current Population Survey Report, California, 1983 and 1984, California State Census Data Center.

Current Population Survey, United States, 1986, United States Department of Commerce, Bureau of the Census.

The information on high school graduates was provided by the Population Research Unit, California State Department of Finance.

Statistical Abstract of the United States, 1986, United States Department of Commerce, Bureau of the Census, Table #249, p. 149.

Statistical Abstract of the United States, 1986, United States Department of Commerce, Bureau of the Census, Table #265, p. 156.

Annual Planning Information, California, 1986-87, Estimates and Economic Research Group, Employment Data and Research Division, Claifornia Employment Development Department, May 1986, Table 39, p. 105.

Annual Planning Information, California, 1986-87, Estimates and Economic Research Group, Employment Data and Research Division, Claifornia Employment Development Department, May 1986, Table 36, p. 100.

Current Population Survey Report, California, 1983 and 1984, California State Census Data Center.

Statistical Abstract of the United States, 1986, United States Department of Commerce, Bureau of the Census, Table #762, p. 455.

1985 Community, Technical, and Junior College Directory, American Association of Community and Junior Colleges, pp. 24-68.

Nathan Dickmeyer and Ana Maria Cirino, *Comparative Financial Statistics for Public Community and Junior Colleges*, February 1986, National Association of College and University Business Officers.

APPENDIX D

STUDY OF FEE IMPACT
ANALYSIS OF DISTRICT CHANGES

BACKGROUND

Legislation (AB 1XX, 1984) established a mandatory enrollment fee of $50 per semester ($100 per year) for those California community college students taking 6 or more credit units and $5 per unit for those taking less than 6 units. (Students taking noncredit classes do not pay the fee.)

This mandatory fee was implemented beginning in the Fall 1984 and, at the same time, ten permissive fees for instructional materials, health, and other student services were eliminated. Among the student fees that colleges were allowed to continue were those for dropping courses, for parking, and for field trips and a variety of other purposes.

During the year prior to the new fee (1983-84), the 70 community college districts charged an average of $39 per student through the more than 20 permissive fees. This average charge varied substantially among districts, however: from a low of less than $1 per student in one district to a high of more than $70.

Since these permissive fees had varied substantially from district to district, the net change in cost to students in 1984 from the uniform enrollment fee also varied substantially from district to district. Across the state, the average fee in 1984-85 nearly doubled from its prior year level: an increase of $42 per students. However, one district actually reduced its fee collections per student by $8 in making the policy change, while among the other 69 districts increases ranged from $3 to $71:

Number of Districts	Range of Fee increases (dollars per student per year)	Average Enrollment Change per District (percent)
14	$-8.04 - 30.95	-4.0
14	32.48 - 39.75	-6.3
14	40.26 - 46.38	-7.2
14	46.58 - 56.16	-7.7
14	56.47 - 70.51	-10.3

This variation in fee and enrollment change among districts provides one basis for analyzing the possible impact of the fee. If the fee had an impact, then (other things

being equal) those districts increasing their fees the most would be expected to experience the largest enrollment losses. Since factors other than the fee could have contributed to the enrollment loss (other things were not equal), the following analysis relies on a statistical technique, multiple regression, where the specific impact of the fee change on enrollment can be examined while holding the impact of other factors constant.

The reasons behind decisions about college-going are many and complex. Aside from an increase in cost for students (from the new fee), other factors that might have contributed to changes in district enrollments in 1984 include:

(a) *improved employment conditions*

As the economy improves (as it did in 1984) and jobs become more plentiful, potential students return to work and, since there is less time for college attendance and less need for job training, enrollment drops. The number of unemployed Californians dropped by 9% that year.

(b) *declines in high school graduates*

The number of California high school graduates dropped by 4,400 or nearly 2% in 1984.

(c) *earlier-starting academic calendars*

Virtually all colleges that have changed calendars to an earlier start have found that their enrollments declined because of that change. Seven of 70 districts moved to earlier starting calendars in the Fall 1984.

(d) *adoption of more rigorous academic policies*

More rigorous practices on student probation and dismissal were implemented between 1982 and 1984 by most districts.

(e) *fee changes and recruiting by the University and State University*

Student fees were reduced at both the University and State University in the Fall 1984 and it has been asserted that both segments more actively recruited eligible students as first-time freshmen that year as well.

(f) *fiscal incentives faced by districts*

The 1984-85 funding mechanism contained powerful incentives for districts to recapture the enrollment they had lost in 1983-84.

(g) *course-scheduling changes*

Increased numbers of sections typically result in increased enrollments. Districts increased their course sections by 4% in 1984.

Together with the fee increase, factors (a) through (e) would combine to produce enrollment losses which would be compensated by the action of factors (f) and (g). Also exerting a compensating influence was the increase in adult population (+1.6% statewide) which normally would lead to an enrollment increase, particularly since it is one of the factors which control district budget growth.

Another important compensating factors was the Board of Governors financial aid program (BFAP). Also authorized by AB 1XX (1984), this program enabled the Board to distribute $15 million in fee waivers for those students on public assistance and in financial aid grants for those individuals otherwise unable to pay the new fee. The Board established regulations under which the districts eventually distributed $4.9 million in 144,000 awards to low income students during 1984-85.

The following analysis attempts to incorporate all the factors described above.

STATISTICAL MODEL

The statistical model used in this analysis is in the regression form:

$$Y = b_0 + b_1X_1 + b_2X_2 + ...b_nX_n + e$$

where,

Y = the dependent variable
(The dependent variable is the factor whose variation the model seeks to explain. In all equations of the model examined in this analysis, the dependent variable is the change in community college enrollment.)

b_0 = the intercept term for each equation

b_1 = the estimated regression coefficient for each independent variable
(Regression coefficients measure the relationship of each independent or "explanatory" variable and the dependent variable -- district enrollment change -- when the impact of all other variables is held constant. A plus sign on the coefficient means that both dependent and independent variables change in the same direction. A negative sign indicates they change in opposite directions.)

x_1 = the independent or explanatory variables
(Independent variables are selected and incorporated in the model to measure those factors thought most likely to cause variation in the

dependent variable. Table 1 lists the variables examined in this analysis together with their expected sign or relationship to the dependent variable, enrollment change.)

e = an error term
(The calculated error term provides a test of the overall "fit" or predictability of the model.)

Other important statistics resulting from the model include the coefficient of determination (R^2), F-Ratio, and t-statistic. R^2 measures the portion of total variation in the dependent variable (enrollment change) that is explained by the independent variables in the model. The F-Ratio tests the hypothesis that all regression coefficients are zero (except the intercept). It is a test of the overall predictability of the regression equation and is calculated by dividing the mean square for the regression equation by the mean square of the error term. The t-statistic is a measure of the significance of each regression coefficient. It is the estimated regression coefficient divided by the standard error of estimate for that coefficient.

A word of caution is in order. While multiple regression is the most powerful statistical tool for this kind of analysis, it does have certain limitations. Problems obviously arise if important variables are left out of the model or if the variables that are included aren't specified correctly or if the data for the variables are inaccurate. Excluding those possibilities, problems with regression models can arise also from situations in which the independent variables are highly related (correlated) to one another. Finally, the conditions being analyzed were not experimentally controlled. The model must assume that the factors are fixed with respect to the dependent variable. Other important assumptions are that errors are normally distributed and that the computed statistics have the proper sampling distributions for hypothesis testing so that the significance of model results can be accurately portrayed. The following discussion will treat these problems and assumptions whenever they appear to be affecting the results.

RESULTS

The results of the regression analyses displayed in Tables 2, 3, 4, and 5 indicate that most forms of the model "explain" three-fifths to four-fifths of the variation in district enrollment changes. The several exceptions to this are noted and explained below. Thus, most of the important factors appear to have been included in this analysis. (Data used for analyses in this Appendix are available upon request.)

The Fee

Equations in Table 2 show that with other factors held constant, changes in total district enrollments are negatively related to changes in student fees, at the 1% level of statistical significance. (A 1% level of significance means that the odds are one in 100 that the results are due purely to chance.) Those districts increasing their student fees the most, other things being equal, experienced the largest enrollment declines. The new fee did impact enrollment.

One way of assessing the validity of these results is to estimate the "cost-elasticity" of enrollment that is suggested by the regression statistics. Cost-elasticity measures students' response to the fee and is calculated as follows:

$$\text{elasticity} = \frac{\text{percent change in enrollment}}{\text{percent change in cost due to the fee}}$$

The Field Research Corporation (FRC) survey of community college students shows that the average student enrolled for credit reported having spent $392 for the "direct" costs of fees, books and supplies, transportation, and child care during the 1983-84 academic year. Using this direct cost as the basis (room and board costs are excluded from this since they are incurred whether or not an individual is a student), it is possible to calculate the cost-elasticity from the regression results. Regression coefficients for the fee change (see Equation 2 in Table 2) indicate that $1 more in fees resulted in an enrollment loss of about 29 students from an average district enrollment the prior year of 15,509.

The calculation:

$$\text{elasticity} = (-29/15{,}509) \div (1/392) = -0.73$$

The specific interpretation of this figure is that when the influence of other factors is held constant, a 10% increase in direct costs facing the student results in a 7% loss in enrollment.

This cost-elasticity value of -0.7 is consistent with the higher elasticity values found in studies by Bishop and Van Dyk (1977), McPherson (1978), the Chancellor's Office (1981, 1985a), and McIntyre (1982). Several of these studies deal with four-year students. In general, community college students appear to respond more to a given increase in cost than do four-year students and, therefore, exhibit higher elasticities. This is probably because community college students have lower average incomes, less prior education, and are more often self-supporting than are four-year students.

The relatively high cost-elasticities found in this study for the change in 1984 community college enrollment may be due also to the psychological impact of a major new, first-time student fee. It seems likely that continuous increases, even if of a

similar level, would engender less reaction over time as students become aware and accustomed to the change and the need to secure financial aid.

Employment and High School Graduates

Also affecting Fall 1984 enrollments significantly, but to a somewhat lesser degree than the fee, were the numbers of individuals returning to work and the decline in high school graduates (see Table 2).

Between July 1983 and July 1984, more than 100,000 unemployed Californians returned to work, thereby leading to enrollment declines. The regression coefficient of 0.44 for changed unemployment (CUNE) indicates an "unemployment elasticity" of

$$\text{elasticity} = (0.44/15{,}509) \div (1/16{,}210) = 0.45$$

This suggests that for every 10% decline in unemployment, districts experienced a 5% average decline in enrollment.

The number of California high school graduates declined (see variable CHSG in the model) by 4,400 or 2% between 1983 and 1984. the "high school graduate" elasticity of community college enrollment may be calculated also using the regression coefficient of 5.97 in Equation 2 of Table 2:

$$\text{elasticity} = (5.97/15{,}509) \div (1/3{,}231) = 1.27$$

Consequently, this variable contributed a modest (though statistically significant) way to enrollment losses. There was considerable variation in the change in high school graduates in different regions of the state. Even though there was an overall decrease in high school graduates, areas served by 21 of 70 districts reported increases in high school graduates.

Other Variables

The regression coefficient for calendar change (CCAL in Table 2) was negative; that is, those districts shifting to earlier-starting calendars lost enrollment. The significance of this variable was less than that of the new fee, unemployment, or the change in high school graduates, however.

An effort to measure and analyze the possible impact of University (UC) and State University (CSU) fee reductions and what are believed to have been more rigorous steps to recruit eligible high school students as first-time freshmen in the Fall 1984 was unsuccessful. Use of institutional proximity (distance from a community college to the nearest UC or CSU campus, PROX) to serve as a proxy measure of the

influence of UC and CSU policies, while statistically significant, carried the wrong sign and, therefore, does not measure what was intended.

The variable intended to measure district fiscal ability, specified as the percent that reserves are of total budget (PRES), is positively related to the change in full-time enrollment (see Table 3). Districts with relatively higher fiscal ability (more reserves) appear to have been somewhat better able to maintain or increase full-time enrollments than were districts with few reserves. This appears reflected also in the significant positive relationship between changes in course sections (CSEC) and full-time enrollment (see Equation 1 in Table 3).

Seven of every ten districts increased their course section offerings in Fall 1984: a statewide increase of 4%. This variable (CSEC) did not prove to be significantly related to half- or part-time enrollment change, however. Moreover, excluding this variable (see Table 2) makes no appreciable difference in the overall results. Thus, district efforts to increase enrollments in 1984 by adding courses appear to have been successful only with full-time students.

The variable that is intended to measure district fiscal incentive, an index of ADA at risk (RISK), is significant, but carries the wrong sign. Districts with the greatest incentive to regain enrollment lost in 1983 (and thereby avoid revenue losses in 1984) surprisingly experienced the largest enrollment losses. Rather than measure fiscal incentive, RISK appears to serve as a proxy for conditions that led to enrollment losses in 1983 and continued into 1984.

The change in district adult population (CAPOP), a measure both of the district's changing demography and budget capability, was not significantly related to enrollment change.

Income and Ability to Pay

As expected, differences in the average household incomes (HINC) of individuals residing in different districts did relate significantly to enrollment changes. Districts with lower income populations experienced the largest enrollment losses. This raises a question about the equity of the new fee, where equity is defined in terms of ability to pay.

In terms of ability to pay, the new fee policy appears more equitable for similarly situated students in different districts. In 1983-84, prior to the new fee, community colleges charged an average of $39 per student across the state, but the variation among districts was substantial:

1983-84 Fee Charges

Average Charge	$ 39
Standard Deviation	20
Coefficient of Variation	.51

Implementation of the new enrollment fee, together with elimination of the ten permissive fees, substantially reduced this variation:

1984-85 Fee Charges

Average Charge	$ 83
Standard Deviation	15
Coefficient of Variation	.18

It could be argued that districts levied fees in 1983-84 with the economic circumstances of their students in mind. The level of fees that year did correlate moderately with the household income of district residents ($r = +.235$). Districts whose residents reported higher (lower) incomes charged higher (lower) fees. Following implementation of the new fee (as adjusted by the Board's financial aid program), however, this same correlation increased to $r = +.386$. The new fee structure would appear to be more equitable than the old structure. That is, students in districts reporting lower incomes paid a lower average fee after the 1984 change in policy than they paid before.

Financial Aid

The Board of Governors financial aid program (BFAP) was to help preserve access by targeting aid to low income students to offset the added cost of the new fee. A negative correlation of Board aid per student and district household income ($r = -.543$) shows that where the income of district residents was lower, more financial aid per student was delivered. The regression results, however, suggest that the impact of the BFAP was modest and, in any case, less than expected.

BFAP regulations distributed funds to districts on the basis of estimates of household income derived from the U.S. Census, among other measures. Districts, in turn, report having distributed $4.9 million through 144,000 awards during 1984-85, an average award of $34.

This aid amounted to an offset of $6 from the $48 total fee increase experienced by the average community college student across the state. This average offset varied from $1 to $31 per student in different districts depending on the socioeconomic characteristics of the area served. Incorporating the average BFAP per student in each district (Equation 3 in Table 2) makes virtually no difference in the results, however. The regression coefficient for BFAP would be expected to be positive: more

aid (other things being equal), fewer enrollment losses. However, the coefficient was negative and not statistically significant. While admittedly a gross measure, the BFAP adjustment would have been expected to curb enrollment losses, but it did not.

This finding and the fact that just one-third of the available aid was delivered suggest that the BFAP did not have the full impact expected of it.

Urban Areas

When the four large urban districts of Peralta, Los Angeles, San Francisco and San Diego are excluded, the power of the model is reduced and changes in unemployment and high school graduates are less related to changes in enrollment (see Equation 4, Table 2). Moreover, calendar changes are now a more important factor in the enrollment decline. Finally, the impact of fees, while still statistically significant, is reduced somewhat. The calculation for the cost-elasticity in the remaining districts:

$$\text{elasticity} = (-17/13{,}231) \div (1/392) = -0.50$$

shows a lower result than the elasticity of -0.7 which results when all districts are included. This is because students outside the four large urban areas were relatively more wealthy and able to pay the fee than were students inside the four large urban areas. Also, the mandatory enrollment fee imposed larger fee increases upon those in the large urban districts:

	Average Fee Increase	Average Household Income, 1980
four large urban districts	$ 62	$ 15,723
other sixty-six districts	41	18,287

Larger fee increases in the four urban districts were due to the fact that these districts levied fewer of the permissive student fees prior to 1984.

The four large urban districts comprise just under one-fifth of the community colleges' total credit enrollment statewide, but accounted for one-third of the credit enrollment loss in 1984 and exhibited much higher relative enrollment losses than did the other 66 districts:

	Percent Enrollment Loss 1983 to 1984
four large urban districts	- 14.6
other sixty-six districts	- 6.7

Academic Load

Results displayed in Table 3 show that the fee had greater impact on full-time students (those taking 12 or more credit units) and on half-time students (defined here as those taking 6 to 11 units) than the fee had on part-time students (defined here as those taking less than 6 units). A continuation of certain conditions that existed in 1983 led to decreases in part-time enrollment (see Equation 3 in Table 3). Also, as expected, improving employment conditions were of major significance to changes in part-time enrollment.

Employment also had an impact on the enrollment of full-time and half-time students, although to a lesser degree than did fee changes. Changes in course scheduling by districts had a positive impact on full-time, but not on half- or part-time enrollment. Changes in high school graduates are significantly related to changes in full- and half-time enrollment, but not to changes in part-time enrollment.

Ethnic Distribution of Enrollment

Results of examining the differential impact of the fee on changes in the enrollment of four major racial and ethnic groups are shown in Table 4.

The new enrollment fees shows a statistically significant relationship to changing district enrollment for all groups except Hispanics. It is not clear why changes in Hispanic enrollment were not (statistically) related to changes in fees, especially since their reported incomes (and apparent ability to pay the fee) are just marginally higher than those of Blacks whose reaction to the fee was significant. Of apparently greater importantance -- than the fee -- in determining Hispanic enrollment changes for Fall 1984 were changing employment conditions (Equation 3, Table 4).

By contrast, fees seem to have been a major deterrant to the enrollment of Black students who apparently opted to work instead of attending a community college (Equation 2, Table 4). This was especially true for Blacks in those districts whose residents report lower household incomes.

The gap between Black and Hispanic response to the fee is explained only in part by differences in the population growth rate and college-going patterns of high school graduates from the two groups. Another possible explanation may be that Black students had a greater economic need to enter the job market in 1984, rather than continue their education and that the enrollment fee forced that decision (see Appendix E).

Unexpectedly, those districts increasing their numbers of course sections did apparently succeed in enrolling more Black students than would otherwise have been the case. This was not true, however, in the case of other students.

Enrollments of both White and Asian students were affected by the fee, but less so than Blacks, and not in any specific relationship to areas of high or low income. White students, who report the highest incomes, reacted to fees more often because of preference than because of inability to pay. Asian students, by contrast, report the lowest incomes of any group, but the highest proportion of their adult population enrolled in community colleges.

Summary of 1984 Impact

In summary, the new fee, increased employment and decreased high school graduates all worked so as to reduce enrollment. The changes in cost from the fee appear to have had a greater impact on enrollments than did either the decreased unemployment or high school graduates:

Variable	% Change	Elasticity Estimate	Related % Change in Enrollment
Fee (cost)	+11	-0.7	-8
Unemployment	-9	0.5	-5
High School Graduates	-2	1.3	-3

The elasticities here are based upon regression coefficients in Table 2. Other variables either were less significant or had compensating effects. These calculations must be viewed in a relative way since the models do not statistically explain all the variation in enrollment change that took place.

Certain unspecified conditions that led to enrollment losses in 1983 continued to contribute to losses in part-time enrollment in 1984. As expected, enrollment of those taking less than 6 units was affected by employment conditions, but not by the fee. Those who normally carry heavier academic loads were affected by the fee. Black students appear to have been affected more by the fee than were students in other racial and ethnic categories.

The new fee caused enrollment losses outside the four large urban districts of San Francisco, Los Angeles, Peralta and San Diego, but improved employment conditions and declining numbers of high school graduates were not as important outside these urban areas. Earlier starting calendars and a continuation of conditions that caused 1983 enrollment losses appear to have been more a factor in the enrollment decline for suburban and rural districts.

These results should be viewed with appropriate caution. Certain of the independent variables are highly correlated, several variables did not have the expected impact, and critical assumptions about the way data and calculated statistics are distributed may not always hold.

Pre- and Post-Fee Evidence

Running the model on the similar data for the pre-fee (1983) and post-fee (1985) conditions produces results that contrast with those for 1984 (see Table 5).

The model explains over one-half of the variation in district enrollment losses from Fall 1982 to Fall 1983. Of primary importance was the cut in course sections. Also of importance was the continuing decline in high school graduates. Notably, district fee changes which averaged $14 per student across the state or about a 4% increase in direct costs do not appear to have played a significant part in 1983 enrollment losses. Nor were changes in the economy a factor. This pattern is quite different than that which characterizes the 1984 enrollment loss. In the latter year, fees and other factors -- but not course section changes -- were important.

Enrollment changes in the second year of the fee are related primarily to continued changes in unemployment. Also significantly related to enrollment changes are changes in fees. While the enrollment fee did not change, drop fees and parking fees were adjusted. More important, however, were increases in the BFAP offset -- the statewide average aid increased by $3 per student. The results suggest that improved delivery of BFAP had an impact on 1985 enrollment. Decreased fee collections due to increased BFAP are significantly related to enrollment increases.

Because of time constraints, unedited data on student fee collections were used for the second year (1984-85) estimates. Slight changes in findings could occur with further refinement of the data on student charges.

Table 1

INDEPENDENT VARIABLES USED IN REGRESSION ANALYSIS

Variable	Expected Relationship to Enrollment Change
CFEE Change in fees per student offset by Board of Governors financial aid per student.	NEGATIVE Greater enrollment losses are expected where the largest fee increases take place.
BFAP Board of Governors financial aid per student.	POSITIVE Smaller enrollment losses are expected where more financial aid is delivered.
CCAL Earlier starting calendars are either implemented (1) or not (0) by the districts.	NEGATIVE Districts implementing earlier starting calendars experience larger enrollment losses.
CUNE Change in area unemployment from July to July prior to Fall to Fall enrollment change	POSITIVE Declines in unemployment lead to declines in enrollment.
CHSG Change in area High School graduates from Spring to Spring prior to the enrollment change.	POSITIVE A decline in high school graduates leads to a decline in enrollment
CSEC Change in course sections from Fall to Fall.	POSITIVE Increased course section offerings should lead to increased enrollment.
PRES Percent that reserves are of district budgets.	POSITIVE Districts with larger budget reserves are better able to increase enrollments
RISK An index of ADA, lost in 1983, that must be recaptured in 1984 to avoid losing revenue	POSITIVE The higher the index (larger number of ADA at risk) the greater the incentive to act so as to make enrollment increase.
PROX The distance between the nearest four-year institution to any college in the district.	POSITIVE The smaller the distance, the greater the impact of UC and CSU in causing enrollment losses.
HINC Median household income for district residents from 1980 Census.	POSITIVE Districts whose residents have larger incomes should experience enrollment increases or at least smaller enrollment losses.
CAPOP Annual change in district adult population.	POSITIVE Districts with large adult population increases should experience enrollment increases.

Table 2
REGRESSION RESULTS FOR CHANGE IN TOTAL ENROLLMENT BETWEEN FALL 1983 AND FALL 1984 AND EXPLANATORY VARIABLES

	(1)	(2)	(3)	(4)
n	63	69	69	65
R^2	.812	.804	.829	.476
F-Ratio	27.4[a]	32.0[a]	28.7[a]	7.4[a]
Intercept	-332.2	-978.0	-1163.1	500.9
Regression Coefficients for Explanatory Variables (t-statistics in parentheses)				
CFEE	-32.86 (-3.5)[a]	-28.57 (-3.4)[a]	-29.4 (-3.4)[a]	-16.52 (-2.4)[b]
BFAP	--	--	-17.77 (-0.4)	--
CCAL	-1346.9 (-2.4)[b]	-940.7 (-1.9)[c]	-897.9 (-1.8)[c]	-1273.3 (-3.4)[a]
CUNE	0.43 (5.1)[a]	0.44 (5.4)[a]	0.46 (5.4)[a]	0.12 (1.5)
CHSG	6.47 (4.6)[a]	5.97 (4.5)[a]	5.8 (4.3)[a]	2.26 (1.8)[c]
CSEC	0.17 (0.3)	--	--	--
PRES	38.9 (1.3)	48.5 (1.5)	42.4 (1.5)[c]	16.6 (0.8)
RISK	-310.8 (-1.9)[c]	-262.7 (-1.8)[c]	-278.9 (-1.8)[c]	-372.9 (-3.3)[a]
PROX	-6.11 (-1.3)	-5.01 (-1.1)	-5.57 (-1.2)	-0.31 (-0.1)
HINC	0.09 (2.5)[b]	0.12 (2.8)[a]	0.12 (2.6)[a]	-0.007 (-0.2)
CAPOP	-0.001 (-0.1)	-0.004 (-0.3)	-0.002 (-0.5)	-0.01 (-0.9)

[a] Statistic is significant at 1% level ($P > 0.01$)
[b] Significant at 5% level
[c] Significant at 10% level.

Note: West Valley is not included due to missing data. Six other districts are excluded from Equation (1) due to missing data on section counts.

Table 3

REGRESSION RESULTS FOR CHANGE IN TYPES OF ENROLLMENT BETWEEN FALL 1983 AND FALL 1984 AND EXPLANATORY VARIABLES

	(1) Full-Time Enrollment	(2) Half-Time Enrollment	(3) Part-Time Enrollment
n	63	63	63
R^2	.773	.841	.451
F-Ratio	17.7[a]	27.5[a]	4.3[a]
Intercept	-270.2	-228.1	237.7
Regression Coefficients for Explanatory Variables (t-statistics in parentheses)			
CFEE	-11.06 (-3.9)a	-19.13 (-3.8)a	-2.88 (-0.5)
CCAL	-298.9 (-1.7)c	-709.3 (-2.4)b	-350.0 (-1.0)
CUNE	0.12 (4.6)a	0.20 (4.3)a	0.12 (2.3)b
CHSG	1.31 (3.1)a	3.94 (5.2)a	1.26 (1.5)
CSEC	0.38 (2.5)b	-0.13 (-0.5)	-0.03 (-0.1)
PRES	12.7 (1.4)	13.8 (0.9)	8.48 (0.3)
RISK	-25.8 (-0.5)	-58.3 (-0.7)	-222.5 (-2.3)b
PROX	-0.26 (-0.18)	-1.10 (-0.4)	-4.74 (-1.6)
HINC	0.03 (2.4)b	0.04 (1.8)c	0.01 (0.5)
CAPOP	1.8E-4 (-0.05)	0.002 (0.2)	0.0006 (0.08)

a Statistic is significant at 1% level (P >0 01)
b Significant at 5% level
c Significant at 10% level.

Note: West Valley is not included due to missing data. Six other districts are excluded due to missing data on section counts

Table 4
REGRESSION RESULTS FOR CHANGE IN ENROLLMENT OF MAJOR RACIAL AND ETHNIC GROUPS BETWEEN FALL 1983 AND FALL 1984 AND EXPLANATORY VARIABLES

	(1) Asian	(2) Black	(3) Hispanic	(4) White
n	63	63	63	63
R^2	.603	.817	.690	.670
F-Ratio	7.8[a]	23.1[a]	11.5[a]	10.4[a]
Intercept	17.5	-664.6	-113.4	701.1
Regression Coefficients for Explanatory Variables (t-statistics in parentheses)				
CFEE	-2.32 (-2.3)[b]	-13.0 (-3.1)[a]	-4.2 (-1.6)	-14.7 (-2.7)[a]
CCAL	-112.4 (-1.8)[c]	-209.1 (-0.8)	-87.7 (-0.5)	-836.1 (-2.6)[b]
CUNE	-0.009 (0.9)	0.23 (6.0)[a]	0.09 (3.8)[a]	0.12 (2.4)[b]
CHSG	0.35 (2.3)[b]	2.58 (4.1)[a]	0.61 (1.5)	1.7 (2.1)[b]
CSEC	-0.27 (-4.9)[a]	0.67 (3.0)[a]	0.19 (1.3)	-0.38 (-1.3)
PRES	3.76 (1.2)	25.1 (2.0)[c]	16.1 (2.0)[c]	5.3 (0.3)
RISK	-34.8 (-2.0)[b]	-27.7 (-0.4)	-2.9 (-0.1)	-209.5 (-2.3)[b]
PROX	-0.58 (-1.1)	-3.0 (-1.4)	-1.5 (-1.1)	-1.07 (-0.4)
HINC	0.006 (1.2)	0.07 (3.3)[a]	0.01 (1.1)	-0.01 (-0.6)
CAPOP	-0.001 (-1.1)	0.007 (1.1)	-0.01 (-2.6)[b]	0.0004 (0.1)

[a] Statistic is significant at 1% level ($P > 0.01$)
[b] Significant at 5% level
[c] Significant at 10% level

Note: West Valley is not included due to missing data. Six other districts are excluded due to missing data on section counts.

Table 5

REGRESSION RESULTS FOR CHANGE IN TOTAL ENROLLMENT FOR THREE YEARS AND EXPLANATORY VARIABLES

	(1) 1982-83	(2) 1983-84	(3) 1984-85
n	63	63	59
R^2	.535	.812	.678
F-Ratio	6.1[a]	27.4[a]	10.3[a]
Intercept	-1750.6	-332.2	-949.5
Regression Coefficients for Explanatory Variables (t-statistics in parentheses)			
CFEE	-10.21 (-0.6)	-32.86 (-3.5)[a]	-35.0 (-2.5)[b]
CCAL	218.4 (0.2)	-1346.9 (-2.4)[b]	1158.6 (1.8)[c]
CUNE	-0.28 (-1.8)[c]	0.43 (5.1)[a]	0.25 (4.1)[a]
CHSG	5.72 (2.0)[b]	6.47 (4.6)[a]	0.976 (1.2)
CSEC	3.57 (3.8)[a]	0.17 (0.3)	-0.16 (-0.6)
PRES	27.3 (0.6)	38.9 (1.3)	15.9 (0.8)
RISK	386.5 (1.1)	-310.8 (-1.9)[c]	32.9 (0.3)
PROX	6.1 (0.8)	-6.11 (-1.3)	2.1 (0.6)
HINC	0.04 (0.5)	0.09 (2.5)[b]	0.06 (1.4)
CAPOP	-0.08 (-3.7)[a]	-0.001 (-0.1)	0.011 (1.3)

a statistic is significant at 1% level (P>0.01)
b significant at 5% level
c significant at 10% level

Note: West Valley is not included due to missing data. Other districts are excluded because of missing data on section counts.

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APPENDIX E

STUDY OF FEE IMPACT STUDENT SOCIOECONOMICS, 1984 TO 1986

If the new community college enrollment fee authorized by AB 1XX (1984) had an impact on students that was not fully compensated by financial aid, the following effects might have been expected:

(a) losses of low-income and, possibly, middle-income students,
(b) an increase in upper-income students,
(c) possibly fewer self-supporting students, and
(d) possible increases in the working hours and borrowing by students.

Consistent with this argument, data from the Field Research Corporation (FRC) surveys of students before the fee (spring 1984) and after the fee (spring 1985 and spring 1986) shows there was a shift in the proportion of students from lower- and middle-income ranges to the upper-income ranges in the first year after the fee. This pattern reversed itself nominally (not significantly) in year two. Contrary to this argument, however, relatively more students were self-supporting (fewer dependent) during spring 1985, the first year of the fee, than were before. No significant changes were reported in the work patterns of students from the FRC surveys. Borrowing was down slightly in year one, then increased in year two.

FRC Research Methodology

The data were gathered by means of self-administered questionnaires sent to a sample of students drawn from a sample of 62 colleges. The 62 colleges, as well as procedures for drawing the sample of students, were the same in all three years.

In each year, the sample universe was defined as the "total active enrollment as of the first census," spring term. Each college provided Field Research Corporation (FRC) with a random sample of students derived using a systematic random counting interval. FRC then drew a sample of students stratified by ethnicity.

The initial mailing of the survey was followed up three weeks later by a second mailing to nonresponders. Two additional follow-up efforts were made to all students who did not respond to either mailing. First, the college mailed a letter to nonresponders. Second, following the colleges' efforts, FRC attempted up to four times to reach the remaining nonresponders by telephone to complete the survey by interview. The results for each year were:

CATEGORY	SAMPLE SIZE			RESPONSE RATE (%)		
	1984	1985	1986	1984	1985	1985
TOTAL	10,247	10,691	10,474	69	66	62
Nat Amr	285	299	331	74	64	64
Asian	2,072	2,126	2,098	74	69	64
Black	2,035	2,073	2,105	61	59	58
White	2,471	2,707	2,576	75	70	67
Hispanic	2,079	2,158	2,135	65	63	58
Filipino	417	425	434	77	70	69
Other	332	319	267	66	62	63
Unknown	556	584	528	65	60	57

Because a stratified sample plan was used, statistical weights were used to bring each ethnic group back into its proper proportion of total community college enrollment. In addition, it was decided to weight each ethnic group to known academic load distributions (full-time, part-time and noncredit status). The second weight was simply a matter of "fine-tuning" each ethnic sample on a critical variable; the adjustment for academic load was quite small. (A more detailed discussion of the weighting procedures can be found in the Field Research Corporation Reports.)

Because the legislation (AB 1XX) authorizing the mandatory enrollment fee for fall 1984 was enacted in January 1984, it was not possible to use fall data to examine all the pre- and post-fee characteristics of students. Therefore, it was necessary for FRC to collect pre-fee data in spring 1984 and, to maintain continuity, collect post-fee data in spring 1985 and spring 1986. Using Spring, rather than the usual Fall, comparisons raised at least two pertinent research questions.

First, did the use of Fall enrollment distributions for stratifying the Spring sample cause any distortions in the data. Given the sampling and weighting techniques used by FRC, there is no reason to believe that it did. Second, were Spring to Spring changes different than Fall to Fall changes. Spring enrollment characteristics differ from those in the Fall (more students are "continuing," fewer are "first-time," etc.) However, the differences tend to be stable from year to year. Consequently, if the focus of the analysis is on year to year changes (as it is throughout this study), then the conclusions should be valid. Moreover, much of the data on student

characteristics and all of the district-specific aggregates were available for each fall and were used where appropriate.

Income

The FRC data show an increase in both mean and median incomes of virtually all student groups in the first and second years of the fee (see Table 1). These increases would be expected because of inflation. Income shifts need to be analyzed after the effects of inflation are held constant. Also, it is necessary to examine the income distribution, rather than just measures of central tendency.

Table 1
MEDIAN VALUES OF INCOMES REPORTED
1984, 1985, 1986

	NATIVE AMERICAN	ASIAN	BLACK	WHITE	HISPANIC	FILIPINO	OTHER
SELF-SUPPORTING STUDENTS							
1984	$14,200	$ 8,000	$11,500	$20,200	$13,600	$17,500	$10,900
1985	15,600	8,800	12,200	22,700	14,500	19,500	14,900
1986	17,000	10,000	13,200	23,800	14,100	20,000	18,000
DEPENDENT STUDENTS							
1984	$26,000	$14,900	$18,100	$30,900	$18,300	$24,000	$23,700
1985	28,100	14,900	18,000	33,600	19,000	24,300	24,500
1986	26,700	14,600	20,300	37,600	20,500	25,500	24,700

SOURCE: Field Research Corporation Studies

After adjusting for inflation (personal income per capita in California increased by 9.1% between 1984 and 1985 and by 7.8% between 1985 and 1986), the income distribution shows a statistically significant upward shift in the first year of the fee (see Tables 2 and 3). (Significance is determining by performing a 3X2 Chi-Square (X^2) test on the data for 1984 and 1985; 5% is the level of significance used here.)

Table 2
CHANGES IN MEDIAN AND MEAN INCOME
SELF-SUPPORTING STUDENTS
(FEDERAL DEFINITION)

CATEGORY	UNADJUSTED		ADJUSTED*	
	MEDIAN	MEAN	MEDIAN	MEAN
1984	$17,300	$22,000	$18,943	$24,090
1985	19,600	24,300	19,600	24,300
CHANGE	2,300	2,300	657	210
% CHANGE	13.3	10.5	3.5	0.9
1986	$20,700	$25,400	$19,202	$23,562
1985-86 CHANGE	1,100	1,100	-1,498	-738
% CHANGE	5.6	4.5	-7.2	-3.1

DEPENDENT STUDENTS
(FEDERAL DEFINITION)

CATEGORY	UNADJUSTED		ADJUSTED*	
	MEDIAN	MEAN	MEDIAN	MEAN
1984	$26,000	$29,300	$28,470	$32,084
1985	27,500	31,000	27,500	31,000
CHANGE	1,500	1,700	-970	-1,084
% CHANGE	5.83	5.8	-3.4	-3.5
1986	$29,900	$32,500	$27,736	$30,150
1985-86 CHANGE	2,400	1,500	236	150
% CHANGE	8.7	4.8	0.9	0.5

SOURCE: Field Research Corporation Survey Data.

* Student income adjusted for general California increase in per capita income: 1984-85: 9.1%; 1985-86: 7.8% (in 1985 dollars).

The first year shift is particularly significant among White students who are self-supporting (a loss of lower-income students) and among Black students who are dependent upon the incomes of parents or others (a loss of middle-income students).

In the second year of the fee (spring 1986), there was a slight shift back; i.e., a nominal return of lower- and middle-income students. This shift is not statistically significant, however.

Table 3
COMMUNITY COLLEGE STUDENT INCOME
BY ETHNICITY AND DEPENDENCY STATUS
ADJUSTED DATA

STUDENT INCOME	SELF SUPPORTING			PARENT INCOME	DEPENDENT		
	1984	1985*	1986		1984	1985*	1986
ALL	%	%	%		%	%	%
$0-$12,000	36.0	32.8*	33.1	$0-$18,000	33.8	30.6*	31.5
$12,001-$24,000	28.0	26.6*	27.4	$18,001-$36,000	35.2	34.2*	32.2
$24,001 +	36.0	40.6*	39.5	>$36,000	32.0	35.2*	36.3
HISPANIC							
$0-$12,000	44.6	44.2	46.4	$0-$18,000	47.5	48.1	46.5
$12,001-$24,000	26.9	26.5	28.7	$18,001 $36,000	36.6	35.9	35.7
$24,001 +	29.2	29.2	25.3	>$36,000	15.8	16.1	17.8
BLACK							
$0-$12,000	49.6	49.5	50.0	$0 $18,000	48.3	49.8*	49.0
$12,001-$24,000	27 1	27.2	27.2	$18,001-$36,000	37.3	28.3*	32.7
$24,001 +	23.2	23.3	22.8	>$36,000	14.6	21.6*	18.4
WHITE							
$0-$12,000	28.3	24.8*	24.8	$0-$18,000	22.8	18.7	19.3
$12,001-$24,000	29.8	28.2*	28.8	$18,001 $36,000	35.7	35.8	31.9
$24,001 +	41 9	47.0*	46.5	>$36,000	41.4	45.5	48.6
ASIAN/ PACIFIC ISLANDER							
	61.1	60.6	59.0	$0-$18,000	56.8	56.8	61.0
$0-$12,000	18.2	17.7	17.8	$18,001-$36,000	28.3	28.2	26.2
$12,001-$24,000	20.0	21.8	22 9	>$36,000	14.7	14.6	12.8
$24,001 +							

* Proportions are significantly different than prior year, at the $P > .05$ level of significance, using the X^2 test.

White students report the highest median incomes, while Asian students report the lowest. Hispanics report marginally higher incomes than do Black students.

Financial Dependency

Three of five students report they are financially self-supporting. After the fee, there was a slight increase in the proportion of self-supporting students. This shift stabilized during during the fee's second year (see Table 4).

Table 4

	Percent Self-Supporting		
	1984	1985	1986
All Students	58.6	60.7	60.7
Native American	67.6	62.5	59.1
Asian	60.3	59.4	60.5
Black	57.5	60.7	61.1
Filipino	53.2	49.7	48.3
Hispanic	50.1	52.3	53.3
White	59.2	62.1	61.4
Other	58.0	62.2	56.8

Hispanics and Filipinos are more often dependent than are the other racial and ethnic groups, all of which tend to be generally alike in this regard.

Financial Aid

Eight percent of the students surveyed by FRC in Spring 1985 report having received the BFAP (see Table 5):

Table 5

	Percent Receiving BFAP	1985 Median Income of Group	
		Self-Supporting	Dependent
Native American	12.8	$15,600	$28,100
Asian	14.1	8,800	14,900
Black	17.2	12,200	18,000
Filipino	5.1	19,500	24,300
Hispanic	10.4	14,500	19,000
White	5.5	22,700	33,600
Other	11.8	14,900	24,500

Despite this high correlation between low income and financial aid, FRC data show that more than half of those students (enrolled in spring 1985) who were on public assistance did not receive fee waivers even though they were automatically eligible.

Also of concern is a group for which no data are available: those who were in financial need, but received no aid, and as a result, did not enroll.

Six percent of community colleges were on public assistance in the spring 1986. Far more of these students applied for and received BFAP aid than did those students not on public assistance. Among full-time students, half of those on public assistance applied for (and virtually all received) the BFAP (Table 6). Among those full-timers

Table 6
COMMUNITY COLLEGE STUDENTS AND FINANCIAL ASSISTANCE
FULL-TIME STUDENTS[a]

TYPE OF FINANCIAL AID	ON PUBLIC ASSISTANCE				ALL OTHER			
	DID NOT APPLY	APPLIED AND RECEIVED	APPLIED BUT DID NOT RECEIVE	APPLIED BUT DID NOT RECEIVE ANSWER	DID NOT APPLY	APPLIED AND RECEIVED	APPLIED BUT DID NOT RECEIVE	APPLIED BUT DID NOT RECEIVE ANSWER
PELL GRANTS	33%	48%	13%	6%	81%	10%	7%	2%
CAL GRANTS A, B, C Bilingual Teachers Grant Graduate Fellowship	79	7	10	44	90	3	5	2
GUARANTEED STUDENT LOANS	86	12	1	1	92	5	2	1
BOARD OF GOVERNORS GRANTS AND FEE WAIVERS	49	48	1	2	91	7	1	1
INSTITUTIONAL AID (SEOG, EOP, EOPS, NDSL, CWS, etc.)	56	32	7	5	89	6	3	2
OTHER	88	7	3	2	96	2	1	1

SOURCE: Field Research Corporation Survey, Spring 1986.
[a] Full time is defined here as those students taking nine or more units.

not on public assistance, only one of ten applied. Relatively few part-time students apply for any kind of aid (Table 7.)

Work

There don't appear to be any significant shifts in the proportion of students who worked during the three years of FRC surveys (Table 8).

Since students responding to the FRC survey did not increase their work appreciably from before the fee to after the fee, it appears that few students reduced their academic load so as to work more to pay the fee. (Though, as we see below, a number

Table 7
COMMUNITY COLLEGE STUDENTS AND FINANCIAL ASSISTANCE
PART-TIME STUDENTS[a]

TYPE OF FINANCIAL AID	ON PUBLIC ASSISTANCE				ALL OTHER			
	DID NOT APPLY	APPLIED AND RECEIVED	APPLIED BUT DID NOT RECEIVE	APPLIED BUT DID NOT RECEIVE ANSWER	DID NOT APPLY	APPLIED AND RECEIVED	APPLIED BUT DID NOT RECEIVE	APPLIED BUT DID NOT RECEIVE ANSWER
PELL GRANTS	81%	11%	5%	3%	96%	2%	1%	1%
CAL GRANTS A, B, C Bilingual Teachers Grant Graduate Fellowship	90	5	1	44	97	1	1	1
GUARANTEED STUDENT LOANS	91	8	1	0	98	2	0	0
BOARD OF GOVERNORS GRANTS AND FEE WAIVERS	68	31	1	0	98	2	0	0
INSTITUTIONAL AID (SEOG, EOP, EOPS, NDSL, CWS, etc.)	92	5	2	1	988	1	1	0
OTHER	96	2	1	0	98	2	0	0

SOURCE: Field Research Corporation Survey, Spring 1986.
[a] Part-time is defined here as those students taking fewer than nine units.

Table 8

	Percent Who Worked		
	1984	1985	1986
All Students	78.4%	78.4%	79.0%
Native American	75.1	74.4	78.4
Asian	69.6	68.3	69.8
Black	71.4	74.8	73.4
Filipino	75.9	77.0	81.9
Hispanic	78.2	79.6	77.4
White	81.7	80.7	81.9
Other	74.9	71.1	74.6

of students appear to have reduced their load to avoid the fee.) This does not indicate, however, the number of students who, with more financial aid, would work less and increase their academic load.

In general, White students work the most, Asians the least. Of every five community college students:

two are employed full-time (work 40 or more hours per week)
two are employed part-time
one is not employed

The typical student works 29 hours per week. As expected, those students who enroll part-time and are self-supporting work the most (Table 9). However, three of four students who report they are financially dependent and enrolled full-time indicate that they work.

Table 9
PERCENT WHO WORKED, 1985

Enrollment	Dependent	Self-Supporting
Full-Time	76.1	69.0
Part-Time	80.9	83.7
Non-Credit	69.0	61.3

Borrowing

The FRC surveys shows that student borrowing declined in the year following the fee, then increased slightly in year two (Table 10).

Table 10
PERCENT OF STUDENTS WHO BORROWED

1984	1985	1986
17.0	14.8	15.1

While this might appear contrary to expectations about the fee's impact (more borrowing to pay for the fee), it may instead simply be a reflection of the loss in low-income students.

Socioeconomic Differences Between Black and Hispanic Students

While Black and Hispanic students report similar incomes and might have been expected to react in parallel fashion to any increase in cost, they did not. It appears from other evidence in this study, that Blacks reacted more strongly to the fee -- though both Blacks and Hispanics appear to have reacted to improving employment conditions. As the economy improved in 1984, both groups went back to work and fewer enrolled.

The difference in Black and Hispanic response to the new fee may be explained in part by differences in the population growth rates (Table 11).

Table 11

CALIFORNIA ADULT POPULATION
ESTIMATED GROWTH RATES
1980 to 1985

Total	10.0%
Asian	25.5
Black	11.2
Hispanic	28.1
White	3.6

SOURCE: Center for the Continuing Study of the California Economy, Palo Alto, 1986.

Differences in the college-going preferences of the two groups also may be explained by the socioeconomic differences of the two groups. It may be that Black students had a greater economic need and, perhaps, ability to enter the job market in 1984, rather than continue their education and that the fee forced that decision.

FRC data show that, compared to Hispanic students, Black students are more often self-supporting and on public assistance, but fewer are employed and their reported incomes are lower while enrolled (see Table 12). Black students also are slightly older, more often female, and generally report having more prior education than Hispanic students. While similar proportions of both Black and Hispanic students are enrolled for occupational training, more Black students are enrolled to transfer and more Hispanics are enrolled for basic language and learning skills.

Table 12
STUDENT CHARACTERISTICS
BLACK AND HISPANIC STUDENTS
1985

Category	Black	Hispanic
Percent Self-Supporting	62.2	52.8
Percent on Public Assistance	13.2	6.3
Percent Working	74.8	79.6
Average Income		
Dependent	$ 18,000	$ 19,000
Self-Supporting	12,200	14,500
Median Age	26	25
Percent Female	58.4	50.8
Percent With 31 or More Units	40.8	33.7
Objectives (percent distribution)		
Transfer	35.2	30.3
Occupational	50.3	49.3
Basic Skills	6.1	10.6
Other	9.2	9.7

SOURCE: Field Research Corporation Survey, Spring 1985.

APPENDIX F

STUDY OF FEE IMPACT
FEE ADMINISTRATION

AB 1XX (1984) requires the Chancellor of the California Community Colleges to study the impact of a new enrollment fee on, among other things:

> "...Changes in the staff requirements and costs of administration (of the fee)."

This bill established a mandatory enrollment fee to be charged to all students enrolled for credit, abolished ten (of over twenty) permissive fees, and established a program of state student financial aid to be administered by the Board of Governors and by local districts (BFAP).

Aside from managing fee deferrals, an activity new to districts, it was not clear that trading several permissive fees that were charged to certain students for one general enrollment fee to be charged to all credit students (though at differing rates, depending upon academic load) would generate any substantial increase in staff workload or in budget requirements. By contrast, administering the financial aid clearly was an added workload for district financial aid and business offices, however, and is discussed elsewhere in this report.

Under the provisions of AB 1XX, 2% of fee revenues were to be retained by each district and, while unrestricted in their use, the intent was that these revenues be used to meet the costs incurred in collecting and managing the fee -- an administrative allowance.

It is estimated that the 2% feature produced $1.4 million in revenues that were retained by the districts in 1984-85. This amounted to just over $13,000 per college.

A fall 1986 survey of college personnel by the Chancellor's Office obtained responses from 63 of 106 colleges and shows that:

(a) Fees were collected by
- three of nine colleges in their admissions offices
- three of nine colleges in their business offices
- two of nine colleges in both their business and admissions office
- one of nine colleges in other locations

(b) Of every eight students,
- six paid in person
- one paid by mail, with their registration materials
- one had fees deferred or paid through the BFAP

(c) Two thirds of the colleges responding feel that the new enrollment fee caused longer registration lines than before; half of the above (one-third of all colleges) feel that the longer lines caused some students not to enroll

(d) Nine of ten colleges either changed or established new procedures to collect the new enrollment fee

three-fifths of all colleges required additional staffing for this purpose

(e) One half of the colleges feel that start-up costs for collecting the new enrollment fee were substantial

Three of five colleges feel that the ongoing costs of administering the new fee will exceed the costs of administering the prior fees.

Table 1 displays the costs that were estimated by college staff responding to the survey:

Table 1
Average Cost of Fee Collection Per College

	1983-84	1984-85	1985-86
Total	$12,410	$36,993	$29,053
Added		24,583	16,643

Colleges added 0.6 FTE staff, on the average, to help administer the new fee.

The estimated ongoing additional cost is slightly greater than what the 2% cost allowance may provide in revenues.

More specific responses to the questionnaire are contained in Tables 2 through 7.

Table 2
CHANGES IN ENROLLMENT FEE COLLECTION PROCESS
BEGINNING FALL 1984 TERM

TYPE OF CHANGE	PERCENT OF COLLEGES	NUMBER OF COLLEGES
No Substantial Change in Process	15.9	10
Process Continued with Substantial Changes	30.2	19
Same Process for Optional Fees, New Process Established to Collect the Enrollment Fee	15.9	10
Existing Process Eliminated, and a Totally New Process Established	38.0	24

Table 3
CHANGES IN EXISTING FUNDING FOR FEE COLLECTION PROCESS
SO AS TO IMPLEMENT COLLECTION OF ENROLLMENT FEE
BEGINNING FALL 1984 TERM

TYPE OF CHANGE	PERCENT OF COLLEGES	NUMBER OF COLLEGES
No Change in Staffing or Funding Levels	39.7	25
More Staff or Funding Required	60.3	38

Table 4
ENROLLMENT FEE COLLECTION SITE
FALL 1984

LOCATION	PERCENT OF COLLEGES	NUMBER OF COLLEGES
Admissions Office	31.8	20
Business Office	33.4	21
Admissions and Business Office	22.3	14
Other	12.5	8

Table 5
METHOD OF PAYMENT OF ENROLLMENT FEE
FALL 1984

METHOD OF PAYMENT	ESTIMATED PERCENT OF STUDENTS
Check or Money Order or Registration by Mail	13
Payment in Person to Business Office Cashier	37
Payment in Person to Admissions and Records Cashier	34
Fee Deferred at Time of Enrollment and Collected Later	6
Fee Deferred at Time of Enrollment and Never Collected	1
Fee Paid by Board Financial Aid Program	2

Table 6
IMPACT OF NEW ENROLLMENT FEE COLLECTION PROCESS
ON LENGTH OF LINES AND COMPLETION OF ENROLLMENT

IMPACT	PERCENT OF COLLEGES	NUMBER OF COLLEGES
Longer Lines at Registration	66.7	42
Students Abandoned Registration due to Length of Lines	39.7	25

Table 7
COST IMPACT ON DISTRICT ATTRIBUTABLE TO
COLLECTING THE NEW ENROLLMENT FEE

NATURE OF IMPACT	PERCENT OF COLLEGES	NUMBER OF COLLEGES
Substantial Start-up Cost	30.1	19
Substantial Start-up Costs and Increase in Cost for Staffing and Support	23.8	15
Start-up Costs not Substantial	17.5	11
Increase in Ongoing Costs for Staffing and Support	19.0	12
No Change in Ongoing Costs	9.6	6

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